

**Implementation of a Policy
to Promote Healthy Eating in Schools:
The Case of New Brunswick**

by

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Abstract

This case study analyses the implementation of the Food and Nutrition Policy for New Brunswick Schools. This policy was developed by the New Brunswick Department of Education and adopted in the legislature in 1991. Its goal was to enhance the nutritional status of provincial school children. Policies like this one represent a new direction for both education and health promotion and warrant investigation because of their potential benefits to student health and learning. In this case, a top-down approach to policy development and implementation proved largely ineffective, so the purpose of this research was to analyse the policy process in order to identify the factors that influenced implementation and to recommend future actions to enhance the processes involved. The analytical constructs were “capacity” and “will,” the ability and desire to implement a policy. The combined macro-and micro-level analyses involved investigating the history and current status of the policy obtained through an examination of government and other documents, 66 interviews with provincial, district, and school-based participants, and observations of six schools in two districts.

The results indicate that four factors influenced implementation: (a) the nature of the policy, (b) the organisational milieu, (c) the approach to policy development, and (d) the approach to implementation. The analysis of these factors combined with an examination of implementation at the local level indicate that if the Food and Nutrition Policy is to be more successfully implemented in future, ‘capacity’ and ‘will’ need more attention. The Department of Education must recognise that implementation requires a significant investment of time, money, and expertise, and the re-organisation of school food services to promote health; and that the process of change needs to be more collaborative and participative to encourage educators to see nutrition as more integral to their professional roles.

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Dedication

This thesis is dedicated to the ideal of
“A healthy mind, and spirit, in a healthy body.”

Chapter 1

Introduction to the Study

1.1 An Overview of the Study

The Food and Nutrition Policy for New Brunswick Schools was developed by the New Brunswick Department of Education and adopted by the New Brunswick Legislature in 1991. Although it is an education policy, it has a health-related goal: to encourage “all students to develop good eating habits by providing food services that feature nutritious food and nutrition education programs and activities” (NB Department of Education, p.2, 1991). The Department of Education actively attempted to implement the policy between 1991 and 1994 but despite the well-intentioned efforts of departmental employees, implementation was largely unsuccessful. The purpose of this research is to analyse the policy process used to develop and implement this policy and to recommend strategies to enhance future implementation. This chapter introduces the concept of public policy, describes the Food and Nutrition Policy for New Brunswick Schools, states the purpose and rationale for the study, and outlines the remainder of the thesis.

1.2 Introduction to Public Policy

Policy may be defined in numerous ways (Pal, 1989; Parsons, 1995). A classic definition by Jenkins (1978) describes policy as “a set of interrelated decisions . . . concerning the selection of goals and the means of achieving them within a specified situation” (p.15). Jenkins views policy as a dynamic series of actions or inaction, not as a static product of a single action. His definition fits this research because he conceptualises policy as a process. The policy process can be described as the sequence of events surrounding the evolution of a policy. The process is frequently characterised as a series of stages which can be a helpful organisational tool as long as the dynamism of the process is not lost. The stages are:

1. **Initiation**, in which the need for a policy is identified and accepted by the policymaking agency,
2. **Formulation**, the preparation of a policy,
3. **Adoption**, the point at which the policy is publicly declared,
4. **Implementation**, defined by Fullan (1991) as “the process of putting into practice an idea, program or set of activities and structures new to the people attempting or expected to change” (p.65), and
5. **Evaluation**, feedback that can be used to influence subsequent decisions about the policy.

Public policy refers to policies that are developed and overseen by governments (Pal, 1989). Public policies may be pro-active, reactive, or symbolic. Policy is pro-active when it is developed before actions are taken to address the issue. Policy is reactive when it is developed as a belated response to events that have already occurred. It becomes symbolic when there is insufficient will to enact it.

Governments use public policies to address a wide range of issues including: the operation of the economy, the administration of justice, the management of property rights, the creation of stable relationships within society, and the provision of services (Ham & Hill, 1984). Service-oriented policies, including health promotion policies, frequently raise the question of “how much control should be vested in the state to legislate in matters which can be viewed as compromising democratic freedoms and the rights of free citizens” (Egger, Spark, & Lawson, 1995, p.102). The extent to which governments decide to curtail individual freedoms to enhance the “collective good” depends on many factors, including the prevailing political ideology and the acceptability of the intervention. When communities find an intervention acceptable, governments are more likely to make it compulsory and monitor its adherence (e.g., seat belt legislation). If it is unacceptable, governments may decide to encourage but not insist on adherence (e.g., the use of bicycle helmets in New Brunswick prior to 1999).

1.3 Introduction to the Food and Nutrition Policy for New Brunswick Schools

The Food and Nutrition Policy for New Brunswick Schools (see Appendix A) is a service-oriented policy that was intended to be compulsory. Rather than allowing school food services to respond to market forces of supply and demand, the intent of the policy is to intervene in school environments to meet three objectives:

1. to organise *school food services* to ensure the availability of *high quality nutritional foods*,
2. to incorporate *nutrition education* into the school environment, and
3. to *ensure access to food* by all students.

School food services refer to all foods which come under the jurisdiction of the school: cafeteria services or other breakfast, lunch, or snack programs, canteens, vending machines, supplemental feeding programs, and food-based fund-raising (NB Department of Education, 1991). *High quality nutritional food* refers to foods that contribute to a healthy diet. A healthy diet includes a variety of foods, and emphasises whole or enriched grains, vegetables and fruits, lower fat dairy products, leaner meats, and the use of no-fat or lower-fat food preparation methods (Health and Welfare Canada, 1990a). *Nutrition education* is the process of teaching validated, current nutrition knowledge to promote positive attitudes and habits of eating nutritious foods (Johnson & Johnson, 1985). It can be incorporated into the school environment through classroom lessons and by linking classroom learning with the school's food services. *Students' access to food* is the degree to which students, without stigma and regardless of their economic backgrounds, can easily acquire foods that are of high quality and are personally acceptable (Campbell, Katamay, & Connolly, 1988).

Like all educational policies in Canada, the Food and Nutrition Policy for New Brunswick Schools is under provincial jurisdiction. There are no federal education policies and there is no federal ministry of Education. The provincial Departments of Education are responsible for all educational

policies. In New Brunswick, the Department is led by a Minister of Education who oversees the eight superintendents spread throughout the province in 18 school districts. There are 355 schools in the province and just over 129,000 school children (NB Department of Education, 1999a). Unlike other provinces, the Department is divided into Anglophone and Francophone sectors, a situation which reflects New Brunswick's status as the only bilingual province in Canada. Also, unlike other provinces, New Brunswick does not have school boards at the district level composed of members elected by the community. Instead, New Brunswick has school, district, and provincial parent advisory councils.

The Food and Nutrition Policy for New Brunswick Schools was intended to be a relatively minor departmental policy. The Department developed the policy pro-actively. The policy passed through the stages of initiation, formulation, and adoption with relative ease. The situation changed abruptly at implementation, when the policy encountered widespread opposition. The departmental goal to fully implement the policy in three years was not met. Some schools tried to implement the three policy objectives; others attempted to at least partially implement the objectives; and others made only a minimal attempt at implementation. Of those that made changes, some are maintaining them, others are still implementing the policy, while others are gradually reverting to pre-policy practices. Overall, the net, long-term impact of the policy has been small, except for a provincial milk program designed to increase student access to food. Clearly, there have been constraints within the system that may be related to either the nature of the policy, the approach to implementation, the organisational milieu in districts and schools, or some combination of these three. The research explores each of these as potential factors which influenced implementation.

1.4 Research Purpose and Questions

The Food and Nutrition Policy for New Brunswick Schools represents an attempt by the Department of Education to use an education policy to

improve the health of its young people. The policy represents a new direction for education and health in New Brunswick. The process, although it did not succeed, warrants investigation because of its relative uniqueness and the information it can provide that could inform similar attempts in the future. The overall purpose of the thesis, therefore, is to analyse the policy process to determine the factors that influenced implementation and to recommend strategies for the future so that the goal of improving the nutritional health of students can be reached. The primary interest is in learning what happened during policy implementation, but because policy evolves through a process (Jenkins, 1978), the analysis covers all the stages to determine their influence. The three research questions are:

1. How did the policy process pertaining to the Food and Nutrition Policy for New Brunswick Schools unfold?
2. Why did implementation occur as it did and what factors influenced the process? and
3. What can be learned from the experience to guide future actions?

The questions are inter-related. The first question sets the overall context for the analysis. The second narrows the focus to factors influencing implementation, but still within the context of the overall process. Out of the responses to the first two questions emerges the response to the third, the recommendations for the future.

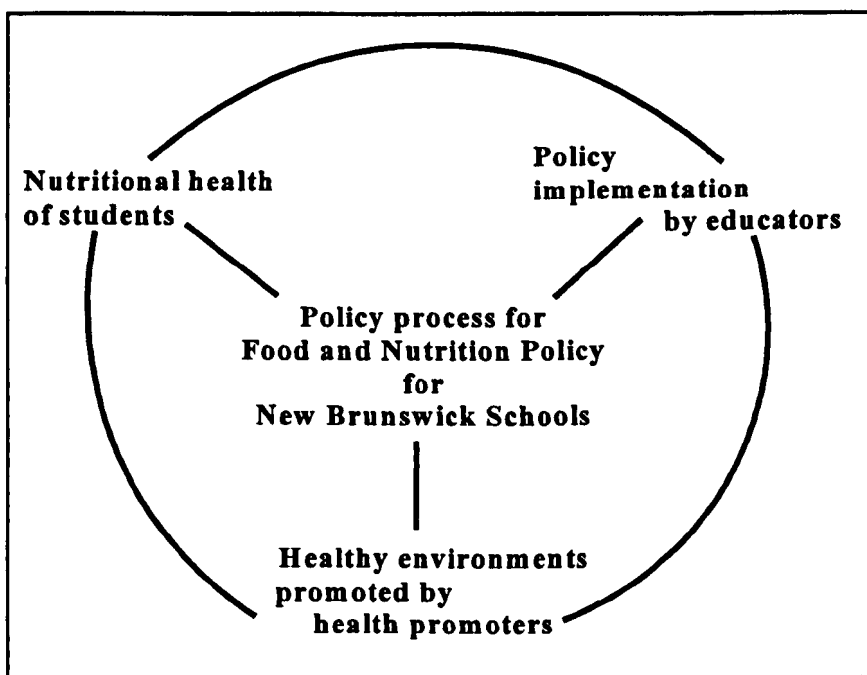
1.5 Rationale for the Study

The research questions are significant. First, educators can use the results of the study to better understand the factors that influence health-related decisions in schools. Second, health promoters can use the results to better understand how policy might be used to shape environments to promote health, an area which is only beginning to be understood. Third, by studying the relationships between educators and health promoters, health promoters can better understand the educational milieu and identify possible areas of collaboration. Fourth, the research examines the degree to which health

arguments motivate educators to change. Finally, if the answers lead to more successful policy implementation, the nutritional well-being of thousands of students could be enhanced.

The research occurs at the intersection of education and health promotion as they relate to the nutritional health of students, as illustrated in Figure 1.1.

Figure 1.1 Situating the Research within Education, Health Promotion, and Nutrition



The research:

- provides educators with information about implementing the new generation of policies in schools directed to promoting health,
- provides health promoters with needed feedback about the new direction in health promotion that recommends the use of policy to promote healthy environments, and

- explores an avenue for addressing nutritional concerns about school students, an important developmental stage in the human life cycle.

1.5.1 The new generation of nutrition policies in schools

Elmore and McLaughlin (1988) state that education policy “consists of authoritative decisions on the purposes of education, on the responsibilities of individuals and institutions, on the money required to run the system, and on the rules required to make it operate effectively and fairly” (p.5). The Food and Nutrition Policy for New Brunswick Schools is part of a new movement within the last ten years to alter the role of schools so they place more emphasis on health promotion. The existence of the policy complements a holistic model of schools which emphasises . . .

. . . integrated service-delivery systems across school, health, and community organizations to provide services to children and families. This structure would be much more comprehensive and fundamental and policies espousing such models would be wide-reaching in their intended impact (Hord, 1995, p.87).

Present-day nutrition policies and programs can trace their origins to school meal programs which began in England approximately one hundred years ago (Berger, 1990). Programs were organised in response to perceived learning and social needs among school children. In England, soon after schooling for elementary children became mandatory, educators realised that hungry learners were poor learners. The programs were organised to provide adequate food by supplying one-third or more of students' daily caloric and nutrient requirements and to provide access to food for students of all economic backgrounds by subsidising the cost or providing free food where necessary. A secondary goal of the programs was to improve the nutritional status of England's citizens. This need was recognised when nutritional deficiencies were found among young men during medical exams for the military during the Boer War in the 1890's.

The nutritional concerns of adequacy and access were consistent with the health concerns of the period. Until the early 1960's, health concerns centred on the prevention and treatment of acute diseases such as tuberculosis,

pneumonia, and polio. These problems often were caused by bacteria or viruses and were influenced by poverty, unhealthy living conditions, poor housing, and unsafe or insufficient food and water. When medical cures, public health measures, and better economic conditions reduced the rates of acute disease, health concerns shifted to the prevention and treatment of chronic diseases such as cardiovascular disease and cancers. The nutrition concerns of adequacy and access expanded to include the concept of nutritional moderation (Brown, 1990). Moderation refers to diets that limit the consumption of fat, saturated fat, alcohol, sodium, and caffeine. In the Western world, excessive intakes of these substances contribute to increased risk of chronic diseases (Health and Welfare Canada, 1990a, 1990b).

The new generation of school nutrition policies and programs still try to address students' learning and social needs through adequacy and access, but the new policies also mandate or encourage schools to promote healthy eating by encouraging students to practise moderation, and therefore are now more explicit in attempting to shape school environments to promote health. Numerous groups in many countries support this re-conceptualisation. In Canada, England and Wales, and the United States, various groups — ranging from individual schools to international agencies such as the World Health Organisation (WHO) — have recently initiated policy changes.

Often, the new policies are part of a formal attempt to use an integrated approach to promote school health in general, not just nutrition. The best known of these movements are Comprehensive School Health (CSH) in North America (Health and Welfare Canada and Canadian Association for School Health, 1993) and the Health-Promoting Schools (HPS) movement in Europe and Australia, which operates under the umbrella of the WHO (Kickbusch, Jones & O'Bryne, 1998). These movements encourage an expansion of traditional efforts (e.g., health classes) to promote health in schools through an approach that coordinates health education, supports and services within the school and community, and the physical and social environment of schools. CSH and HPS also promote health education through the use of behaviour-

based teaching strategies and learning activities in which students consider the environments in which they make health decisions, and encourage the integration of health information into other subject areas. CSH is still in the early stages of development and application in the education system. The approach presents a challenge, since not all educators support a holistic model of schools in which health promotion is considered an appropriate school role. As Green and Kreuter (1991) state:

From the health perspective, schools represent the most valuable resource for health promotion, but they are relatively autonomous, or at least independent of the health sector. . . . From the educator's perspective, the school has a different set of priorities, and its educational role in society should not be compromised in the pursuit of health objectives (p.350).

This difference of perspective between education and health is difficult to resolve, in part, at least, because the two are usually researched separately. In educational research, "it is children's minds that are of interest, not their bodies or relationships between bodies and minds" (Mayall, Bendelow, Barker, Storey, & Veltman, 1996, p.4). Likewise, health studies of school children are often medically oriented and do not consider educational dimensions. The research being reported here bridges the education and health domains and offers an opportunity to analyse the responses by schools to an educational policy that has health promotion as a central goal.

1.5.2 New directions for nutrition policies in health promotion

Current school nutrition policies represent a new direction not only within education, but also within health promotion. Health promotion is defined as the area of health devoted to the "process of enabling people to increase control over and to improve their health" (WHO, 1986, n.p.). Instead of the traditional view which focussed on health as the absence of disease, health as the responsibility of individuals, and lifestyle education as the primary mechanism for change, health is now viewed as a resource for living (WHO, 1986). The new approach takes a more holistic view of health and recognises that healthy choices by individuals are significantly shaped by their

physical, social, and political environments (O'Neill & Pederson, 1994).

Health is fostered in environments where it is easy for people to make healthy choices. Increasingly, health promoters recognise that public policy can be used to help create and maintain such environments. A distinguishing feature of this approach is that it attends to both the content of the policy and to the process by which the policy is developed and implemented (Allison, Edwards, Kelner, Marshall, & Pederson, 1988; Labonte, 1990). The goal is that the process itself should be health-promoting and that those involved should feel more empowered.

Health promoters also recognise that departments of health cannot achieve this goal on their own. All types of policies — education, economic, housing, cultural, and others — impact on people's health; therefore an important goal is to have all sectors explicitly consider and take responsibility for the health implications of their policies. Such policies are known as healthy public policies and are regarded as fundamental to modern health promotion (deLeeuw, 1989; Tones & Tilford, 1994).

This new approach was articulated in *Achieving Health for All* (Epp, 1986), a document published by Health and Welfare Canada, the federal ministry responsible for health. It identified healthy public policy as an important mechanism to promote health. That same year, the WHO held an international conference which resulted in the publication of the Ottawa Charter. This charter states that three interrelated actions are needed to promote health:

1. build healthy public policy by taking health promotion beyond health and onto the agenda of all sectors so that they too accept responsibility for health;
2. create supportive environments by recognising that health goals are integral to existence and must be considered as part of any changes that occur in patterns of life, work, and leisure; and

3. strengthen community action by empowering communities to take greater control of their endeavours, using resources and skills from within the community (WHO, 1986).

These and subsequent documents (e.g., Canadian Public Health Association, 1986) have continued to call for the development of healthy public policy. Although Canada has been a strong supporter of the concept on paper, actions have been limited. In 1988, Allison *et al.*, in a Canadian review of healthy public policy, concluded:

While we know a great deal from the literature about the need for healthy public policy, we have little empirical evidence concerning the effects of various implementation and coordination strategies, the contexts of its development, or the effects of such policy on the health of populations (p.117).

The situation has changed little since that time. According to Hancock (1994),

... [in] terms of developing healthy public policy, there has been no progress whatsoever at the national level, nor has there been any indication of any particular interest or willingness to take action. No real work has been done to follow up on the [1988] review of healthy public policy [by Allison *et al.*] (p.359).

Hancock (1994) believes the most promising developments are at the local level. This relative inaction at the national level reinforces the importance of this research which documents an attempt to use a provincial policy to shape local school environments to promote nutritional health. The results of the research may encourage health-promoters to consider areas where they might collaborate with educators to make health-promoting policies more meaningful.

1.5.3 Nutrition policies and the nutritional status of school-aged children

Research on the Food and Nutrition Policy for New Brunswick Schools is important for a third reason. The ultimate reason for undertaking the research, although not its direct focus, is to improve the nutritional status of students, a matter of concern to nutritionists and other health professionals. Schools offer a powerful avenue for influencing students' physical, mental, social, and emotional health (Kann, Collins, Pateman, Small, Russ & Kolbe,

1995). Childhood is a critical phase of growth and development and school nutrition programs can help address learning and health problems.

Poor nutrition has significant negative impacts on learning, often contributing to a downward spiral of poor health and poor academic achievement (Troccoli, 1993). For example, children who are undernourished — who consistently do not receive enough nutrients or enough Calories (food energy) — score lower on standardised tests, especially on language ability (Troccoli, 1993). If they skip breakfast, they are more likely to do poorly on problem-solving tasks. These children are more subject to infections; and therefore more likely to be sick, miss school, and fall behind in their lessons. They are less able to concentrate, are more irritable, and have lower energy levels. Iron deficiency anaemia, most prevalent in adolescent females, also affects learning. Iron is required to carry oxygen in the blood, and when children are deficient, they experience a shortened attention span, irritability, fatigue, and have difficulty concentrating. These conditions contribute to poorer test results (Centers for Disease Control, 1996; Troccoli, 1993).

Poor nutrition can also lead to health problems among school-aged children, including: excessive weight and obesity, under-nutrition, iron deficiency anaemia, unsafe weight-loss methods, eating disorders, and dental caries (Centers for Disease Control, 1996). On the other hand, good nutrition in early life has both short- and long-term benefits. During childhood, good nutrition contributes to healthy physical development, promotes healthy weights and a positive body image, increases self-esteem, fosters positive emotional relationships with food; and helps children concentrate on academic tasks, maintain positive energy levels, and resist infection (Centers for Disease Control, 1996). The long-term health benefit is that healthy dietary patterns established in early life tend to be continued and can reduce an adult's risk of such chronic diseases as coronary heart disease, cancer, stroke, diabetes, high blood pressure, obesity, and osteoporosis (Centers for Disease Control, 1996).

The argument for good nutrition for school aged-children is compelling but the results have not been widely applied, although interest has increased in

recent years. Because of the relative newness of such policies, there are many unanswered questions, including how effective health arguments are in motivating educators to initiate, achieve, and maintain change. If this research succeeds in identifying strategies that could assist with implementation of future policies, it could have far-reaching benefits for the nutritional status of students.

1.6 Introduction to the Remainder of the Thesis

The analysis of the implementation of the Food and Nutrition Policy for New Brunswick Schools is a significant case because it represents a new generation of school food policies, signifies a new direction for the field of health promotion, and ultimately seeks to improve the nutritional status of young people. The remainder of this chapter outlines the subsequent chapters of this document.

1.6.1 Conceptual framework

In order to address the research questions, it must be remembered that this policy intersects two fields: health and education. The approach to the analysis, therefore, reflects its origins. The conceptual framework, described in Chapter 2, draws on literature from both fields, as well as the field of public policy analysis. This approach makes the analysis more comprehensive and helps identify similarities and differences between education and health to determine possible areas of future collaboration.

Chapter 2 begins with an introduction to three models of policy implementation and an explanation of how the analysis is approached in this research. It then describes the two-part conceptual framework which is the basis for the study. The first part consists of a description of the stages in the policy process, drawing on literature from policy analysis. The stages are used to analyse the policy process in Chapters 7 and 8.

The second part of the conceptual framework is based primarily on McLaughlin's (1987) work on implementing educational policies, but also

draws on the work of other researchers in education and health. The framework explains the concepts which influence policy implementation (McLaughlin, 1987). These are the “capacity” of schools, or their ability to implement a policy; and their “will”, or desire to implement. In Chapters 5 through 10, this conceptual framework is used to analyse the factors that influenced the implementation of the Food and Nutrition Policy for New Brunswick Schools and to formulate recommendations for the future.

1.6.2 Literature review

New Brunswick is not alone in its interest in using policy to promote the nutritional well-being of students. Chapter 3 reviews research from Canada, England and Wales, and the United States of America, organised around:

1. problems associated with school nutrition,
2. calls for action to address these problems, and
3. the results of such actions.

The review shows that research connected with school nutrition policies has provided useful information, but has focussed mainly on the outcomes of policies or interventions, not the process of change.

The research reported here helps fill this knowledge gap by focussing on the process that led to the outcomes. The New Brunswick case is well-suited to the analysis, first because the policy was developed at all, second because it was developed at the provincial level, and third because it has been around for a relatively long time in comparison to similar policies in other jurisdictions.

1.6.3 Research methodology

The analysis of the policy examines what happened but, more important, analyses the process of how and why it happened and what can be learned from it. The research methodology, explained in Chapter 4, is a case

study approach which allows the policy process to be examined at both macro- and micro-levels in its real-life context.

Chapter 4 explains why the naturalistic approach, in which meaning within social contexts is explored, was the most suitable methodological paradigm to address the research questions and why a case study was used as the overall methodology. Yin defines a case study as “an empirical inquiry that: investigates a contemporary phenomenon within its ‘real-life context’ when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin, 1989, p.23).

Chapter 4 describes the data gathering and analysis methods used in the case study and how these were applied to the New Brunswick policy. It explains how the analysis used multiple forms of evidence to study events and decisions made at the departmental, district, and school levels; and how the roles and relationships among stakeholders — students, teachers, district and departmental administrators, parents, food service personnel, health professionals, and others — were examined in context.

1.6.4 Choice of methodology in relation to my stance as a researcher

I undertook this study as a result of my longstanding strong personal commitment to promoting healthy eating in schools. This commitment stems from my university education and my current employment. I hold both a BSc and MS in nutrition. Since 1986, I have taught in a Faculty of Education in the area of foods, nutrition, and health promotion in schools. Because of my position, I was asked by the Department of Education to assist with the formulation of the policy being in 1990. At that time, I worked with policy developers for approximately six months. Thereafter I maintained an interest in the policy but had no formal involvement until 1996 when I requested and received departmental funding for this research.

My prior involvement with the policy meant that I had an understanding of events in the process and knew some of the key people involved. My experience helped me design the study. At the same time, however, I had to be

careful when collecting data to be receptive to new information and interpretations and to refrain from making assumptions about what people were telling me.

I come to the study as a health promoter who works in an educational setting. I am not content to just observe and report; my long-term goal is to find ways to help schools become more active settings for health promotion. As a result, my work is action-oriented and I have designed the research to be practical and applied. I also wanted to design a study that was participatory and collaborative so the research process complemented the research topic — I wanted to use a healthy public policy approach to studying a health-promoting-policy.

My perspective has changed as I researched this area. In the beginning, my strong academic background in the sciences led me to view research as more detached and clinical. Through readings, discussion, and exposure to other research possibilities, my attitude changed and I discovered other avenues more suited to my purpose. The outcome is a thesis that is applied in nature and that has benefited a great deal from the input of others. Although the PhD research has ended, the project itself is continuing, with plans for actual implementation of the recommendations.

1.6.5 Limitations of the research

This research, like all case study research, is bounded by time, place, and the sample. Data were collected between 1996 and 1999, in New Brunswick, a small province with a population of approximately 750,000, largely rural, inhabitants. New Brunswick is located in eastern Canada in an economically disadvantaged region. Although New Brunswick's economic situation has improved in recent years, the unemployment rate is above 10%, which is above the national average (Statistics Canada, 1999). Over the seven years from 1990 to 1996, an average of 19.2% of New Brunswick children have lived in poverty (Canadian Council on Social Development, 1999), a figure which is marginally below the national average of 19.8%. There are 58

food banks dispersed throughout the province serving a disproportionately high number of children (G. Gavel, personal communication, 1999). Nationally, there are approximately 460 food banks in ten provinces, serving 2,600,000 Canadians, including 900,000 children annually (Health Canada, 1996). In other words, New Brunswick has more food banks (58) than the average expected per province (46) to serve an area containing only about 3% of the population of Canada.

Sampling for the study was purposeful. This type of sampling permits conclusions to be drawn for this case, but limits its generalisability to other jurisdictions. A number of steps were taken to enhance the trustworthiness of the results. These steps included using multiple methods of data collection, interviewing over 60 participants, and reporting results in participants' own words.

1.6.6 Organisation of the results and recommendations

In reviewing and analysing the data, four factors were found to influence the capacity and will of schools to implement the Food and Nutrition Policy for New Brunswick Schools. Chapters 5 through 10 integrate the history of the policy process with a discussion of these factors. Chapter 5 discusses the nature of the policy; Chapter 6, the organisational milieu; Chapter 7, the approach to policy development; and Chapter 8, the approach to policy implementation. Chapters 9 and 10 provide an account of local variability in implementation. Chapter 11 concludes the thesis with recommendations for future actions.

1.7 Summary

This introduction has provided background information, the purpose and rationale of the study, and an overview of the remaining chapters. Chapter Two explains the conceptual framework on which the research is based.

Chapter 2

Conceptual Framework: Studying the Implementation of Health-promoting Policies in Educational Settings

2.1 Introduction

As a health-promoting policy developed by the Department of Education, the Food and Nutrition Policy for New Brunswick Schools intersects two major social concerns, education and health. The cross-disciplinary nature of the policy calls for an analytical approach that respects existing knowledge in policy implementation from both fields. Therefore, the conceptual framework that was developed for this study is informed by literature from both education and health promotion, as well as from policy analysis, a field of study devoted to the policy process (Parsons, 1995).

A basic requirement for designing research studies in policy analysis is an understanding of the various models of policy implementation. This knowledge helps inform the decision of how to approach the analysis, a key design consideration given its influence on the overall conceptualisation of the research. There are three major models of policy implementation: the top-down approach, the bottom-up approach, and a third group of related models derived from the other two (Parsons, 1995). The first part of the chapter summarises the models and explains the analytical approach used for this research.

The remainder of the chapter describes the two-part conceptual framework used to address the research questions. The first part addresses the first research question: how did the policy process unfold? It consists of a description of the stages in the policy process, drawing mainly on literature from policy analysis. In Chapters 7 and 8, this information becomes the framework for describing the stages in the policy process in New Brunswick.

The second part of the conceptual framework addresses the other two research questions: What factors influenced the implementation process? What can be learned from the experience to guide future actions? This part of the framework is based primarily on McLaughlin's (1987) work on policy

implementation in education. The framework includes an explanation of how ‘capacity’ and ‘will’ influence policy implementation. The framework also includes a discussion of how an analysis of the nature of the policy, the organisational milieu, the approach to policy implementation, and conditions at the local level can be combined to produce a micro- to macro-level analysis. In Chapters 5 through 10, the framework is applied to identify and analyse the factors that influenced implementation in New Brunswick and to formulate recommendations for the future.

2.2 Models of Policy Implementation and Approaches to Analysing Policy

The three major models of implementation are: the top-down approach, the bottom-up approach, and a group of models that combines qualities of the two. Parsons (1995) describes the top-down approach to implementation as being . . .

. . . about getting people to do what they are told, and keeping control over a sequence of stages in a system; and about the development of a programme of control which minimizes conflict and deviation from the goals set by the initial ‘policy hypothesis’ (p.466).

Policy emanates from the top, and with the full compliance of the levels below, it is implemented as intended. Hogwood and Gunn (1984), for example, specify ten pre-conditions that allow top-down implementation, two of which are: those in authority are able to demand and obtain perfect obedience; and few external circumstances exist to constrain implementation. The pre-conditions are based on the assumption that the “top” has a clear plan for what needs to be done, that the plan is based on a valid theory of cause and effect, and that the policy agency can communicate the plan effectively.

Policy analysis that reflects the top-down approach examines the degree to which implementation achieves the policy objectives. The analysis focuses on the actions of senior decision-makers and examines the clarity of the implementation strategies in directing the actions of individuals at the front-line (Howlett & Ramesh, 1995).

In contrast, the bottom-up approach to implementation begins by observing actions by individuals at the front-line and examining implementation as actually realised (Elmore, 1980; Parsons, 1995). It makes fewer assumptions than the top-down approach about cause and effect and about relations among the members of the organisation. It views conflict and bargaining as central to the policy process, not as undesirable side effects. It regards participants as active individuals who respond to problems using the rules and procedures that are available, not as passive receivers of information.

An analytical approach that uses this perspective focuses on the actions at the front-line (Elmore, 1980). In the analysis, actions at this level are re-traced upwards through the managerial system. The approach reflects the model itself and therefore “takes account of reciprocity in the relationship between superiors and subordinates in organizations; the connection between hierarchical control and increased complexity; discretion as an adaptive device; and bargaining as a precondition for local effects” (Elmore, 1980, p.612).

Other policy researchers (McLaughlin, 1987; Barrett & Fudge, Lewis & Flynn, as cited in Parsons, 1995) reject the exclusive top-down and bottom-up models of policy implementation. They propose a third group of related models which view the process as more interactive and as evolving under the influence of various factors, such as, external constraints, the milieu of the institution, and power relationships (Parsons, 1995). McLaughlin (1987) characterises policy implementation as a multi-staged, iterative or repeating process within the system, in which continually changing conditions, participants, and requirements create a state of action and reaction which may not be predictable or linear. McLaughlin recognises that although the larger organisational milieu influences implementation, ultimately, change is a problem for the smallest unit in the organisation.

Based on these beliefs, McLaughlin argues that to capture the iterative nature of the policy process, a similarly iterative approach to the analysis is required. The approach needs to be flexible enough to trace all aspects of the process as it unfolds, including unpredictable events. An iterative approach

follows the process as it moves among the different levels of the organisation in an up-, down-, and across-level analysis, at both the micro- and macro-levels. At the micro-level, the analysis focuses on individuals and examines local variability within the smallest unit of the system. At the macro-level, the analysis considers the organisational milieu of the implementing system.

McLaughlin views both perspectives as complementary:

The quality of individual-level responses determines the quality of policy implementation; the nature and level of changes evident in the organization or in the aggregate status of target groups determine the extent to which policy has addressed macro-level problems (McLaughlin, 1987, p.177).

Other policy researchers in health promotion and education have discussed similar approaches to policy implementation. Milio (1988), a policy researcher in health promotion, recommends that greater emphasis be placed on the process of policy development than in the past. She thinks that more attention to process would enable policy planners to be more effective and would help develop the political skills of policy supporters. Milio labels her approach an “ecological view of policy-making.” In essence, it reflects McLaughlin’s beliefs that policy evolves during the policy process under the influence of changing social-political conditions and the changing views of individuals. She recommends that policy planners pay closer attention to the process by studying: (a) the participants, to ascertain the positions of key parties and their actions; (b) the social climate and the environmental conditions, to learn more about the perceptions regarding the feasibility of the project and the conditions that influence policy-making (e.g., how and by whom the policy will be implemented and how its impact will be measured); and (c) the roles played by the mass media, to determine their influence.

The debate on educational policy between Hatcher and Troyna (1994) and Ball (1994) helps extend the work of McLaughlin by raising the question of the weight that should be given to the various parties when analysing the policy process: Is the state dominant or are the front-line people dominant, and what evidence will be gathered to arrive at the answer? Hatcher and Troyna (1994) believe that power is weighed heavily in favour of the state, although

political action is one means by which target groups can oppose change. Ball (1994) acknowledges the power of the state but points to local action by front-line dissenters as indicators of hope that inappropriate policies can be resisted. McLaughlin (1987) acknowledges the difficulty of finding an appropriate analytical balance when she states that the challenge of modern policy analysis is to integrate “two communities of discourse in models that can accommodate these multi-level, multi-actor complexities” (p.177).

Hatcher and Troyna (1994), and Ball (1994) situate their discussion within a social-political context and explain the theoretical and philosophical bases for their arguments. In doing so, the debate provides an important reminder of the need to address questions about the inter-relationships between the macro- and micro-levels of the system.

Each of the three approaches — top-down, bottom-up, and iterative — to policy implementation and analysis were reviewed when deciding which approach to use in analysing the findings. In the end, the selection was based on the advice of Howlett and Ramesh (1995). “Both [the top-down and bottom-up] approaches bring insights to policy implementation and should be combined to reach a comprehensive understanding of the subject” (p.157). McLaughlin’s (1987) approach, therefore, was selected because it focussed on following events as they unfold and supported the analysis of actions and reactions at the micro- and macro-levels. An additional advantage of McLaughlin’s approach was that it offered flexibility in analysing a policy which included many unknowns, given that its history had not been documented at the outset of the research.

2.3 Approaches to Implementation and Success

The discussion on models of implementation and approaches to the analysis of implementation raises the related question of which approach to implementation is most likely to succeed. While there is no single best alternative, McLaughlin believes that an incremental approach, in which change occurs in small steps under local direction, is preferable to large-scale

implementation that is externally driven. The incremental approach is characterised by adjustments and negotiation, trial and error, and recognition that policies continue to change during the policy process (Parsons, 1995).

Allison *et al.* (1988), from the field of health promotion, recommend the use of a mixed scanning approach based on their review of healthy public policy in Canada. Mixed scanning combines the more top-down approach of setting long-range goals through the central authority with a degree of bottom-up flexibility at the local level over smaller decisions. Allison *et al.* (1988) express concern that the incremental approach will continue the lack of action often associated with the health policy arena.

Hall (1995), from the field of education, recommends the use of “middle-level guiding parameters.” This approach is similar to the mixed scanning approach and is based on the principle that all parts of an organisation must participate and be fully involved with the change effort. The “top” sets expectations and guiding limits and the front-line implementation group then has some flexibility in customising the policy to fit a particular situation. Hall acknowledges that this middle level perspective is difficult to develop and maintain.

2.4 Conceptual Framework Part I: The Policy Process

One objective of this research is to trace the policy process as it unfolded. The policy process consists of the sequence of events that comprise the evolution of policy from beginning to end. The conceptual framework must be sensitive to the fact that the process is complex and multi-dimensional. It must be able to take into account such variables as: organisational environments and administrative structures; patterns of decision-making and communication among groups; relationships involving power and control among policy makers, interest groups, target groups, and others; accountability for action, inaction, or re-interpretation of the policy; and the rules that guide behaviour within organisations and professions (Hill, 1997). In order to assist with understanding its complexity, the process is frequently conceptualised as a

series of stages: initiation, formulation, adoption, implementation, and evaluation, (cf., Barker, 1996; Hill, 1997; Jenkins, 1978; Milio, 1988; Parsons, 1995). Although describing the process in this way is a useful conceptual tool, the real-life policy process is unlikely to be so clear and three important caveats must be kept in mind when reading the resulting analysis.

First, the use of stages to describe the policy process should not imply that the policy is a clear-cut choice, selected from among alternatives and universally supported. The process of gaining support for a preferred policy option may be complicated. For example, it may require trying to convince interest groups with opposing views or those who support the status quo that the proposed alternative is in their best interest, while convincing those who are uninformed that the policy warrants their attention. If these efforts fail and a policy alternative that is poorly supported nonetheless becomes policy, governments may compromise by allowing target groups considerable discretion in the way it is implemented (Hill, 1997).

Second, describing the policy process as occurring in stages does not mean the content of a policy is fixed once it is developed (Hill, 1997; Pal, 1989). Interested parties may exert pressure to alter the shape, pace, or direction of a policy in ways that benefit them most or harm them least. Their actions may result from changes in their perceptions about the policy, or changes in social, political, and economic conditions (Milio, 1988).

Third, describing the policy process as occurring in stages should not imply that the process is linear or that the stages are sequential or that every policy passes through each stage (Hill, 1997; Pal, 1989). In fact, this is unlikely to be the case. For example, the implementation of a policy may begin before initiation or adoption are complete, or a policy may be abandoned prior to evaluation. Bowe and Ball (1992) argue strongly that separating the policy process into stages incorrectly implies that policy generation and implementation are distinct from each other. Instead, they believe that the inter-play between these “stages” occurs throughout the process and influences the ultimate effects of the policy. Their alternative is to conceptualise policy as

a discourse and to define it as a claim regarding what the world might be — as an operationalisation of values. They characterise the policy process as three inter-related contexts: influence, text production, and practice. The policy process begins within the context of influence. Here, issues related to the policy are discussed and major policy concepts established. These issues, in turn, may be debated or further discussed by the media, committees, or other groups.

The second context, text production, presents the policy in words for further discussion. The text of a policy often includes both the written policy and accompanying information. Policy documents may be clear and straightforward or vague and contradictory. Either way, they are frequently the result of struggle and compromise. Such texts will be read and compared with other policies and interpreted by individuals and groups who hold their own assumptions. The text which comes to represent the policy has a critical impact on the overall policy process.

The third context, practice, extends how the policy is interpreted and re-interpreted. The people targeted by the policy bring their own policy-related experiences and views which will influence their subsequent actions or inaction. As a result of the different interpretations made through the three contexts, the end result may be a policy with a number of unanticipated effects.

The New Brunswick policy under study evolved as a result of the prior history of nutrition and education within the province and of the political milieu. The implementation of the policy, therefore, must be situated within its historical and political context in order to better understand what happened and why during implementation. The next five sub-sections describe the events generally associated with each stage of the policy process, bearing in mind the above caveats.

2.4.1 Initiation

The first stage of the policy process, initiation, may begin in two different ways. Either a new problem or perceived need is identified, or

existing policies are judged to be inadequate because of new situations or changed conditions (Parsons, 1995). For the people who are concerned about the problem, the goal is to gain sufficient attention to legitimise the problem so that it receives an official response. Individual players often differ on which aspect of an issue they believe is really “the problem,” how it is connected to other issues, how it should be addressed (for example, at the individual or societal level), and how it should be measured. These perceptions are influenced by cultural values, interest group advocacy, scientific information, and professional advice (Rochefort & Cobb, 1994); and have a significant influence on all subsequent stages of the policy process and the types of solutions that are proposed to address the problem. Interest groups, therefore, may vie with each other to provide the official definition of the problem and to do so in ways that best suit their interests. For example, a problem defined in narrow terms can limit public participation in solving it, whereas a broad definition can increase participation.

2.4.2 Formulation

Not all problems will lead to the development of policy. Formulation includes the decision-making process whereby the means for addressing a problem is determined and the policy is written (Howlett & Ramesh, 1995). Sometimes problems and proposed policies are identified simultaneously during initiation. At other times, formulation occurs after the problem has been placed on the government agenda (Howlett & Ramesh, 1995). Once a decision is made that a policy is needed, additional decisions are required to generate alternatives for solving the problem and to select the policy approach deemed most appropriate. Decisions about policy alternatives are political and require at least a temporary definition of “the problem” and a corresponding policy solution that is acceptable. The factors influencing these decisions range from macro-level to micro-level forces and include: cultural norms, demographics, class conflict, institutional routines, interest-group actions, and pressure from influential individuals. The decision process can be assisted by applying

knowledge gained from research on problem definition and the social construction of problems, as well as from community studies and historical analyses. Rist (1994) recommends an impact study to explore anticipated and unanticipated impacts of the various policy alternatives.

2.4.3 Adoption

Compared with other stages of the policy process, the adoption stage is often relatively brief; however it is a time when key decisions are made (Parsons, 1995). Adoption involves actions by public agencies to build support for a proposed policy in order to gain its approval (Bullock, Anderson, & Brady, 1983) usually in the form of legislation (Pal, 1989). It may also involve the publication of rules or directives associated with the policy (Anderson, 1976). Bargaining among individuals and groups is likely to continue during this stage as they try to gain support for their position. This bargaining may become more public than that which occurs during initiation or formulation as the proposed policy is subjected to political debate, public examination, committee review, or consultation, culminating in a political vote (Pal, 1989). At one time, policy adoption was regarded as an endpoint in the policy process (Pal, 1989), with the finished product ready to be received and acted upon by others. Within the last twenty-five years, it has been increasingly recognised that the policy will continue to evolve as it is interpreted and re-interpreted during subsequent stages (Howlett & Ramesh, 1995).

2.4.4 Implementation

Implementation is the process by which policies are translated into programs, procedures, and regulations. The outcomes of implementation may vary widely, from full implementation to virtual non-implementation, or somewhere in between; or the policy may be re-interpreted and then implemented.

Much occurs during implementation and different policies will follow different patterns. In all cases, implementation is influenced by governmental

systems and the political culture. For some policies, clear rules for implementation are given and expectations for subsequent actions are straightforward. For other policies, implementation also requires the development of a policy framework; while for others, policy-making and implementation are synonymous. In the latter two cases, implementation often becomes complicated because the group responsible for passing the policy is not the group responsible for implementing it. The various administrative levels must identify therefore what actions constitute policy implementation, and decide how to interpret what is intended by the policy. Disagreement about these may engender conflict (Hill, 1997). As a result, the meaning of the policy continues to evolve and be re-defined during implementation.

To ensure policy compliance, agencies may use different tactics ranging from those that represent a high level of government involvement and that directly compel action by regulating groups responsible for delivering public good and services, to those that represent a low level of government involvement and that call for voluntary actions by non-governmental organisations and private enterprises (Howlett & Ramesh, 1995). Communication among groups regarding decision-making is an important aspect of implementation as are the types and level of resources allotted to and used during implementation.

2.4.5 Evaluation

Evaluation involves examining “how policies have performed against policy goals and what impact a policy may have had on a given problem” (Parsons, 1995, p.55). The results of an evaluation can then provide feedback to the policy agency and form the basis for policy maintenance or reformulation if necessary (Anderson, 1976; Parsons, 1995). Whether or not the evaluation is acted upon depends on the politics surrounding the policy, although in recent years, greater emphasis has been placed on evaluation because of the increased pressure for accountability and the need to demonstrate the cost-effectiveness of policies and programs (Parsons, 1995).

Two general types of evaluation are possible: formative or process, and summative or outcome. A formative evaluation involves studying the program while it is active by monitoring events at each stage of the policy process to determine if intended actions occur and resources are used as allocated, and to generate feedback to help make ongoing adjustments. A summative evaluation occurs after an intervention is complete and measures the outcomes of the policy. They often take the form of comparisons to some standard or pre-defined goal, between the previous situation and the current one, or between the situations in two or more jurisdictions or contexts. Values, beliefs, politics, and ideology, all influence the interpretation of policy outcomes (Parsons, 1995).

The policy process has no single closing stage; instead, a variety of outcomes are possible. The policy may be reformulated as a result of feedback from evaluation, it may be maintained, it may be succeeded by a new policy judged to be more suitable, or it may be terminated (Parsons, 1995). Reformulation occurs if the existing policy is felt to require some adjustment to improve it; while maintenance involves the continuation and entrenchment of an existing policy within an organisation.

In summary, the stages of the policy process are: initiation, formulation, adoption, implementation, and evaluation. These are used to guide the analysis of the policy process in Chapters 7 and 8 and to help determine the effect of the process on implementation in the New Brunswick case.

2.5 Conceptual Framework Part II: Policy Implementation

The second part of the conceptual framework addresses the remaining research objectives: the analysis of the factors influencing implementation and the formulation of recommendations for future action. Like other policy analyses, the challenge is not only to examine the actions by government and the target group of the policy; but also to capture “a continuous process of interaction with a changing and changeable policy, [and] a complex interaction structure” (Ham & Hill, 1984, p.108). Bearing in mind the nature of the policy

being studied and its origins in education and health, the approach to developing this part of the conceptual framework was to review the literature in education and health promotion and to use these to develop the framework. The resulting framework, presented below, is applied in Chapters 5 through 10 to analyse the factors that influenced implementation and to make recommendations for the future.

The conceptual basis for the framework is McLaughlin's (1987) work on policy implementation in education, which states that implementation depends on the "capacity" and "will" of the target organisation. The framework also describes how the analysis should address the nature of the policy, the organisational milieu, the approach to policy implementation, and local variability as these factors relate to capacity and will.

McLaughlin's work was selected as the basis for this part of the conceptual framework for a number of reasons. First, it is practical, straightforward, and can be used with relative ease. This is important because of the applied nature of this research, the results of which need to be accessible to groups responsible for promoting healthy eating in schools. Second, McLaughlin's work is based on her long experience studying policy implementation in education, not in another policy field. This means it is relevant to the school settings in this study and increases the likelihood that some educators may already be familiar with the work, having considered it in relation to the implementation of other education policies. Third, her work is based on an extensive review of research and study. Fourth, it encompasses key factors that influence implementation and has strong explanatory value. Finally, McLaughlin's work is not incompatible with work from the field of health promotion, a situation which facilitates the analysis of this cross-disciplinary policy.

2.5.1 Capacity and Will

'Capacity' is the ability of a local group to implement policy. It can be increased through training, funding, and expertise. In a commentary on

educational reform, Elmore and McLaughlin (1988) elaborate on a teacher's ability to implement change and suggest that the following are important: the need for time to make the change, the need to understand the nature of the intended change, and the ability to access ongoing technical assistance relevant to the teacher's situation. The capacity for change among individuals at the front-line is likely to be increased when the number of competing demands that require attention is small; the change is congruent with accepted practice within the school; the change has the principal's support, leadership, and involvement; the organisational environment is conducive to the change; and the change is a political concern (Elmore & McLaughlin, 1988).

'Will' is the desire to implement and is based on the attitudes, motives, and beliefs that influence the target group's response to the policy. Factors that influence 'will'¹ include: the degree to which teachers are motivated to learn the new practice based on their perceptions of how well it will serve students; their assessment of their ability to accomplish the change successfully; their perceptions of the practicality of the change based on their current situations; and the costs associated with the change, including personnel and material costs as well as the cost of failure (Elmore & McLaughlin, 1988).

Teacher resistance to change is rooted in educators' incentives and reward systems. . . Ironically, it is often professional concern about a wide range of goals and multiple forms of rationality rather than personal apathy that depresses teacher willingness to change (p.44).

Will is more difficult to change than capacity because it is influenced by perceptions about the value of a policy, the appropriateness of the implementation strategy, and aspects of the social-political milieu, including the stability of the organisation, competing centres of authority, and other priorities and pressures within the organisation (McLaughlin, 1987). Will can sometimes be changed after the policy is implemented as people gradually come to value the change. In using capacity and will to analyse policy implementation, McLaughlin gives two cautionary pieces of advice: first, that

¹ Throughout the text, single quotation marks will be used whenever the meaning of the word 'will' may be ambiguous within a sentence.

“policy at best can enable outcomes, but in the final analysis, it cannot mandate what matters” (p.173); and second, that the outcomes of the policy process may not be what the policy agency wants, but may be better suited to the needs of the target group.

In discussing the influence of capacity and will on policy implementation, McLaughlin (1987) also discusses the implications for analysts. She recommends that they examine or have knowledge of the following:

1. the nature of the policy, because knowledge of the substantive aspects of a policy attunes the analyst to particular problems it may present;
2. the social-political milieu of the organisation, so the analyst can understand the context for the process;
3. the approach to implementation and the different stages of the implementation process so the analyst can collect the appropriate information relevant to each stage — in this study, the approach to implementation must be considered in terms of both education and health promotion; and
4. local variability, which presents an opportunity to study a “vast natural experiment” (McLaughlin, 1987, p.176).

The challenge, as previously acknowledged, is to successfully link the micro- and macro-level analysis. To prepare for the challenge, it is useful to explore each of these four points in more detail.

2.5.1.1 The nature of the policy

Analysts must be knowledgeable about the substantive aspects of the policy and the particular problems associated with it (McLaughlin, 1987). The type of policy can influence local perceptions about capacity and will in a number of ways. These perceptions include: the clarity and complexity of the change required by the policy, the degree of consensus and conflict that exists regarding the change, and its quality and practicality (Fullan, 1991, 1992).

In Fullan's opinion, clarity occurs only when people are actually able to work with the innovation, although training and introductory information can help. The complexity of the change is influenced by the number of aspects of current practice that are affected, the amount of change in practice, beliefs, and materials that is required, and the difficulty in learning the new skills. The more extensive the reform, the greater the likelihood that people will experience difficulty and frustration during the early phase of implementation.

Consensus and conflict about the change vary, depending on the perceived need for change, the suitability of the proposed response, and the relative priority of the issue in question. Widespread consensus on the need for change may not be present initially; however, as advantages of the change become evident, support can follow. In an extensive case study on the implementation of micro-computers in Ontario classrooms, Fullan (1992) found that the Ministry of Education perceived that teachers would strongly support the change in principle, but perhaps not in practice because of their unfamiliarity with using computers.

Quality and practicality of the change refers to perceived benefits. In schools, change is most likely to occur and be maintained when it results in visible improvements to student outcomes, especially if at least some improvement occurs quickly. If tangible evidence of benefits is not forthcoming, careful monitoring is required to determine the effects of the change. Decisions to implement are also affected by how practical the change is. It is more likely to be viewed as practical if it meets felt needs, fits with the current situation, and includes information that makes it easier to use. Perceptions of reward versus investment are based on whether the benefits outweigh the costs in terms of personal time and effort.

A careful consideration of the nature of the policy in the context of the organisational milieu can assist groups with formulating their approach to implementation. Health researchers Perry, Stone *et al.* (1990), in designing the implementation of the Child and Adolescent Trial for Cardiovascular Health (CATCH), drew on adoption-diffusion research to try to increase the

attractiveness of the program to schools. In doing so they recognised that the decision to adopt is influenced by perceptions about need and whether or not the change is an improvement, about compatibility with ongoing activities, and about ease of both implementation and communication with others. They also considered other reasons why groups might adopt the program, including: whether it was a state or local mandate, a response to a perceived problem, an opportunity for innovative programming, or part of a program review. They then took these reasons into account when preparing their proposal to schools for implementation. As a result, their proposal was explicit about the potential value and benefits of the study.

2.5.1.2 Social-political milieu of the organisation

An analysis of the institutional context is integral to the study of the implementation process. McLaughlin (1987) argues that while it is important to study actions by individuals at the micro-level, it is also imperative to situate these within the macro-level context of the implementation system. “The supports, incentives, and constraints that influence implementor capacity and implementor motivation reside in the broader system” (p.175). An examination of the system is required, therefore, in order to fully understand the basis for the actions and reactions that occur. A macro-level analysis can help policy analysts identify “systemic attainments and unanticipated consequences for the institutional setting as a whole” (p.177).

Drawing on his case study on micro-computers, Fullan (1992) identifies a number of local conditions, procedures, and processes that influence the implementation of policy, including: professional development and assistance; the principal’s leadership; the direction, commitment, and support provided by the policy agency; community support; and environmental stability.

Fullan believes that professional development and assistance is the most critical factor influencing implementation. For example, teachers need to have the opportunity to see the change in action, try it themselves, and receive feedback. Information provided to the teacher about the change should be

related directly to it. The attention given by the implementation agency to professional development is an indicator of their level of commitment to change.

The leadership provided by principals is also important. Principals need to understand the innovation in order to provide guidance to their staff. They can then help their staff develop a shared vision that can be put into practice, as well as facilitating their access to resources, training, and assistance.

The policy agency has an important role to play in helping to confirm and clarify the need for change, to provide clear and consistent communication and pressure, and to assist by providing resources, including training, consultation, and materials. Assigning responsibility for the change at the district and school level is also important as is providing formal recognition to groups who change. These actions indicate that the policy agency considers the change a priority.

Community support refers to both parental and community support. Strong support or opposition by parents can have a significant effect on implementation. Often, however, changes are implemented in schools with little external involvement.

The stability of the environment within the school and society also influences implementation. Local conditions must be considered throughout the process. For example, changes in leadership can interrupt the continuity of change. The number of decision-making levels that are involved in the policy process, the amount of autonomy possessed by each, and their accountability requirements are further considerations. Changes at the macro-level — such as shifts in government policy or public opinion, or economic changes, can lead to unstable environments. Hall (1995) cautions that the intense need for change that characterises the current education environment has contributed to problems in the organisational milieu. He feels that the pace of change has caused educators to “feel that they are drinking out of a fire hose” and has resulted in “system gridlock” (p.103).

2.5.1.3 Approach to implementation in education

The approach to implementation used by the policy agency is also an important consideration in policy analysis and can influence the capacity and will of the target group. Policy analysts must understand the evolving nature of the implementation process and also recognise what information is most appropriate to gather at each phase. Multiple measures rather than single measures can more effectively assess the level of will of target group members and the degree of change that results from the policy. To conduct this assessment, analysts may find it helpful to examine the types of supports and pressures used by the implementing agency. McLaughlin (1987) identifies support and pressure as the two major means of building capacity and will during implementation. Neither is likely to achieve implementation alone. For example, if target groups receive only support, they will be more likely to abandon the implementation of one policy when new policies are introduced. If target groups receive only pressure, their implementation is more likely to be mechanical and to not reflect the “spirit” of a policy. In combination, support enables implementation and reduces the likelihood of non-compliance or of a symbolic response only, while pressure provides legitimacy and maintains the policy as a priority.

Elmore and McLaughlin (1988) provide additional insights into the process of policy implementation in their commentary on educational reform. They identify three inter-related elements that affect reform: policy, administration, and practice. An effective policy can alter school organisation and practice, but will only succeed when administrators recognise the value of educational practice during the process. The reform process is more likely to be successful when: (a) adaptation to the change is viewed as shared problem-solving, (b) the involvement of the school organisation and teachers is regarded as imperative, (c) the sharing of authority among the organisational levels is given careful thought, (d) policies are given time to mature during their implementation, and (e) variability of practice is recognised as normal and desirable because it illustrates different ways that an issue has been addressed.

Hall conceptualises the process of change during policy implementation (1995) as involving three stages of concern which occur as participants experience the change. During the first stage, concern tends to be interpreted in terms of self and of what the policy means to the individual at a personal level. As implementation begins, concern during the second stage becomes more task oriented and participants shift to thinking about how to manage the logistics of implementation. If implementation proceeds successfully, individuals will reach the third stage, impact, in which they can analyse the effect of the policy. Hall's work underscores the importance of recognising that individuals view the policy differently at different stages of the process.

Fullan (1991), in writing about educational change, stresses the importance of the process of implementation. Planners must have a vision of change that is based on sound concepts, is organised in a practical way, and is sensitive to local and external politics. Initial organisation encompasses good planning, setting realistic time lines, developing strategies for the different facets of implementation, and making the change a priority. Later in the process, a system for dealing with problems and concerns and for coordinating the work of those involved with the implementation becomes important. Implementors must recognise the important role played by administrators in maintaining the change by seeing that it continues to receive budgetary support, materials, and other supports. The complete process can be facilitated by organising a system of monitoring and problem-solving. Fundamental to the success of the process are clear channels of communication that enable problems to be solved and information about the process to be collected.

The research by McLaughlin (1987), Hall (1995), and Fullan (1991), discussed above, is useful when analysing existing policy. Hord (1995) and Fullan (1992) have developed approaches that can be used during the planning stages of implementation. Hord's (1995) model extends McLaughlin's work on pressure and support by dealing explicitly with how both can be used to increase the effectiveness of implementation. Hord (1995) explains how

support and pressure can be effectively combined during the implementation process. She outlines six strategies to achieve educational change:

1. developing a shared vision,
2. planning and providing resources,
3. developing staff,
4. assessing progress,
5. providing ongoing assistance to schools, and
6. creating an atmosphere of change.

At each stage of the process, she indicates how the same action can simultaneously serve as a source of support and pressure.

The first strategy recommended by Hord (1995) is to create a vision, a mental image of a preferred future. She suggests that support is increased when there is broad participation in creating the vision. Staff feel supported when a vision emerges that is communicated widely, frequently, and effectively. Giving formal recognition to those who contribute to the vision is supportive and demonstrates commitment to the process. The same actions can help foster ownership by exerting subtle pressure on the people who participated in the process to support the vision. A clear vision makes it harder to avoid implementing the change, while decreasing frustration created by misinterpretation. Giving recognition to contributors to the vision may also add pressure on others to conform.

The second strategy, planning and providing resources, increases the likelihood of support for the resulting policy. If, in turn, the policy is effectively communicated, increased pressure to implement will result. Resources may also be used as a source of support and pressure. They can be given to those who implement, or withheld from those who do not. Other decisions about resources are also important. For example, the decision to allot time for planning is likely to engender support from the target group, while simultaneously conveying the policy agency's expectation of change.

The third strategy is investing in ongoing staff development. Staff training is perceived as most supportive when leaders actively participate in the

development process. Staff development may be most effective if it combines support, through rewards; and pressure, through requirements. Gingiss (1992) believes support should be provided on an ongoing basis and should offer opportunities for practising skills and strategies using collaborative approaches.

The fourth strategy is to assess progress. The process of change must be monitored throughout to enhance coordination. Monitoring should occur early in the process to demonstrate that the policy is a priority. Monitoring, too, is a way of demonstrating both support and pressure: leaders show support by their interest in how the school is managing, and pressure by showing that they expect change.

The fifth strategy is to provide regular, ongoing assistance to schools. Once initial implementation has occurred, new pressures may often erode the changes already achieved. By continuing to provide assistance, schools can identify new needs and seek assistance to meet them. Providing assistance gives schools the support required to maintain the change, and helps maintain the pressure to continue. Celebrating progress and sharing experiences are important aspects of the process, because of both the support they demonstrate and the peer pressure they imply.

The final strategy involves creating an atmosphere of change, which should be addressed throughout the process. Leaders create such an atmosphere by providing the supports needed for change as well as appropriate pressure. To create an atmosphere of change, leaders must attend to both the physical aspects of schools, such as facilities and policies; and to the culture of the school, the attitudes, and the norms and relationships. Actions that foster a positive atmosphere include: frequent and clear communication among staff, leaders who deal with disputes, and the establishment of school traditions.

2.5.1.4 Approach to implementation in health promotion

The healthy public policy approach embodied by the Ottawa Charter (WHO, 1986) challenges traditional professional practice in which persons with specific skills and knowledge provide service for money. Health Canada

(1996) recommends a new approach to policy implementation: the formation of multi-sectoral networks so that partners can collaborate in numerous ways to set policy, establish local goals, and educate others about promoting health.

The new public health model is based on . . .

. . . 'a social contract' with entire communities. To date, the consequence is that there is a great deal of rhetoric about public participation but a marked unwillingness to really engage in the processes which would bring it about (Ashton & Seymour, 1995, p. 37).

While much has been written about the potential benefits of healthy public policy, there is still relatively little applied research to provide information. Whitehead (1996) stresses the need for assessments of how policies are interpreted and how they are enforced. Susser (1995), after reviewing the results of a smoking cessation program, concluded that health promotion involves developing social movements that are outside government, a slow process. Only after some change has occurred will the government be influenced to develop supportive policies, an action that can then help increase the pace of change.

The field of health promotion places great emphasis on the *process* by which policy is developed, implemented, and evaluated. According to Labonte (1990),

Health promotion should manifest itself more as a philosophy or process than as a specific program. . . . [This] means that reduction in disease incidence is no longer the only, or even the most important, outcome. New measures of health need to be used, incorporating group successes in health advocacy and healthy public policy, and changes in psychosocial dimensions such as social support, self-esteem, command over personal resources and 'surplus' powerlessness (p.135).

In the Health Promoting Schools projects, Crosswaite, Currie, and Young (1996) emphasise the importance of process evaluations. Their goal is for the process to be health-promoting, with the result that those who are involved feel more enabled. They recommend that indicators of participants' health be monitored throughout the process to determine if the enabling goal is met. Health promoters have identified four inter-related characteristics of healthy

public policy that contribute to an empowering outcome: collaboration, participation, comprehensiveness, and equity.

Collaboration has been described in various ways. Rosenthal (1998), in an extensive review of collaboration as it relates to nutrition, describes collaboration as a purposive relationship involving the creation of new types of organisational structures. Collaboration, whether among different sectors or different disciplines, involves groups working in concert to solve problems, although the exact nature of how collaboration operates in health promotion requires further elucidation (Eakin & MacLean, 1992). Collaboration is seen as an essential characteristic of policy-making given the complexity of today's health problems and the fact that such problems cannot be solved by the health sector alone. Collaboration is also seen as a way to increase participation in decision-making. Collaboration may take a variety of forms, for example, during implementation, participants may collaborate to . . .

. . . assess needs and assets, create and implement action plan[s], launch effort[s], produce preliminary results and analyze progress to determine next steps, establish committee structure[s], refine working procedures, cultivate resources and activities for collaboration, seek equilibrium by developing consensus around [the] changing mission and work of the collaboration and recruit and hire staff, develop contracts and subcontracts, [and] create and test protocols for contract compliance (Rosenthal, 1998, p.256).

The apparent acceptance and support for the idea of collaboration does not make actual collaborative efforts easier (Allison *et al.*, 1988; Fortin, Groleau, Lemieux, O'Neill & Lamarche, 1994). Potapchuk (1998), in reviewing collaborative projects, identified several barriers to full collaboration, including: coordinating previously separate services into one service, maintaining confidentiality, resolving conflicting advice from different groups, and arbitrating power issues among groups. Allison *et al.* (1988) identify additional difficulties, including: problems in ensuring public participation, inexperience with the policy process, uncertainty about strategies to encourage collaboration, and ideological differences among participants regarding the use of top-down versus bottom-up approaches.

Potapchuk (1998) identifies two types of power relationships in collaborative activities. The first type is collaborative betterment, in which the idea of collaborating is brought to the community by an outside agency. The second type is collaborative empowerment, in which the priorities and vision are defined by the community before outside help is sought. Betterment initiatives are more likely to be perceived as being “done to” whereas empowerment activities are more about “doing with”, an approach considered more likely to succeed over the long term.

Fortin *et al.* (1994) suggest that the following elements be considered when groups try to foster collaboration: (a) the organisation of the coalition through the selection of members and the establishment of procedural rules, (b) the means or resources by which members might influence other members, (c) the advantages to member groups of participating in the process, (d) the relationships between members, and (e) the methods of group decision-making. Recognition of these elements makes the policy process more explicit and generates more opportunities for genuine collaboration among sectors and disciplines.

Successful collaboration may result in a variety of outcomes, such as: achieving the goal, gaining legitimacy for the issue, creating new ways to solve problems and to work with other people, or empowering people. Because collaboration occurs as a process, its assessment requires both process and outcome measures. Potapchuk (1998) identifies potential difficulties associated with understanding and evaluating collaboration. For example, process evaluation results such as the level of satisfaction of the participants, may or may not relate to the ultimate goal of the intervention. As well, outcomes may be significantly influenced by factors other than collaboration, such as changes in the economic climate.

Participation is defined by the WHO as “a process in which individuals and communities identify with a movement and take responsibility jointly with health professionals and others concerned, for making decisions and planning and carrying out activities” (Tones & Tilford, 1994, p. 256).

Like collaboration, the idea of participation has wide support, but there is uncertainty as to what it means in practice. Many policy researchers in health promotion believe that the results of more broad-based decision-making would lead to improved policies and health outcomes and contend that significant social and ecological transformations require collective action (Hancock, 1985).

Difficulties related to participation arise in practice. For example, there are no easy answers regarding how to balance the involvement of broad-based citizen groups and special interest groups, how to assess both the degree of real attention given to encouraging participation and the impact of the results on established institutions, and whether forms of participation should be mandated. Allison *et al.* (1988) state:

Healthy public policy can be seen as a complex process in a changing social, economic and political environment. It must confront the power of vested interests while remaining committed to public participation, and it must resolve the contradiction between effective coordination and the decentralization that wide participation would entail (p. 28).

In addressing these and other considerations, Allison *et al.* (1988) recommend the following aspects be considered: (a) the extent and type of participation by those affected by the issue; (b) the recognition given to participants and their influence on policy development; and (c) the extent to which the process of participation contributes to a positive self identity and personal skills, a sense of communal solidarity, comfort-level with making decisions, organisational capabilities, and lobbying strategies. These allow for both process and outcome-based examinations of the policy process.

Comprehensiveness reflects a broad vision of healthy public policy. The Ottawa Charter (WHO, 1986) exemplifies the breadth and scope of healthy public policy by citing the following conditions as prerequisites for health: food and education, shelter, a stable ecosystem and sustainable resources, peace, equity, and justice. In the mid 1900's, Sigerist (cited in Labonte, 1990) wrote that health programs should include free education including health education, good working and living conditions, healthy means

of rest and recreation, health institutions that treat and restore health, and centres for medical training and research.

A comprehensive view recognises that people's social, economic, and physical surroundings provide the context for their lives. The overall understanding is that efforts to improve health must be broadly conceptualised, "... ensuring that policies and practices are in place to provide Canadians with a healthy environment at home, school, work or wherever else they may be" (Epp, 1986, p.9). The federal government recognises that to date, efforts to make health policy more comprehensive have been more implicit than explicit, and that improvement will only occur if such policy is developed with explicit reference to its social, economic, and political context.

Labonte (1994), while recognising the need for a comprehensive approach, expresses concern that if health becomes so broadly defined that it includes most of human experience, it will lose its power to shape policy. On the other hand, if health is conceptualised only within biomedical terms, it loses its dimension as a social movement and is unlikely to reach the ultimate goal of empowerment.

Equity is closely related to the use of a comprehensive approach to health promotion. Health programs show a definite social gradient, largely influenced by social and economic circumstances. Wealthier people enjoy longer lives, lower infant mortality rates, and lower prevalence of chronic diseases than poorer people (Whitehead, 1996). Policies that consider equity, for example, by improving housing, employment, or access to the food supply, attempt to remove this differential (Egger, Spark, & Lawson, 1995). Tones and Tilford (1994) argue that because of the effect that income has on health, all economic policies should consider their implications for equity.

Whitehead (1996) identifies four levels at which equity can be addressed:

1. the individual level, through policies aimed at strengthening individual citizens (e.g., health education classes for new mothers);

2. the community level, through strengthening villages, towns, cities, and other communities (e.g., women's health groups to improve city housing conditions);
3. the institutional level, through improving access to essential facilities and services by considering not only the physical conditions of living, but also psychosocial conditions (e.g., access to sanitary and uncontaminated food, schools that organise their work environments to promote comprehensive staff wellness); and
4. the societal level, through encouraging macroeconomic and cultural change (e.g., re-distributive taxation policies).

Whitehead (1996) argues that much of the activity aimed at reducing inequalities has been at the first two levels and that more gains will be made if the emphasis shifts to the third and fourth levels. She also echoes the beliefs of others (e.g., Labonte, 1990) that there should be a strong empowering component to any policy that is developed; that is, the policy should help people build their self-confidence and skills so they have a better chance of maintaining their health despite negative external forces. She recommends the use of strategic approaches and cross-sectoral action locally, regionally, nationally, and internationally.

Green and Muhajarine (1996) state that the following aspects must be considered if equity is to be addressed as part of the policy process: the characteristics (including socio-economic status) of the policy's target population; the level of involvement of marginalised groups in the process; the dimensions of equity addressed or not addressed; the consideration of the policy within a larger context; and the translation and interpretation of the policy into action.

2.5.1.5 Local variability

The nature of the policy, the organisation of the social-political milieu, and the approach to policy implementation all contribute to the capacity and will of schools to implement a policy. These influences combine in unique

ways at the local level, depending on how the nature of the policy is interpreted by stakeholders, the particular organisational milieu of the school, and the degree of resonance between the implementation agency's and the school's approach to implementation. This uniqueness manifests itself as local variability and can provide significant insights into the policy process by helping analysts better "understand program outcomes, evaluate alternatives, assess internal work requirements, and develop models of how policies operate in practice" (McLaughlin, 1987, p.177).

Fullan (1992) agrees with McLaughlin that much can be learned from the experiences of local groups that change. From his case study on the implementation of micro-computers in schools, he concludes the best approach is to assist a few schools with the change in order that others can learn from their experience. Their success will then increase adoption by others. Fullan also notes that, when an innovation such as micro-computers is new, the implementation process is likely to be slow due to uncertainty about desired outcomes and strategies for achieving them. As McLaughlin comments, local responses offer an opportunity to study "combinations and permutations of practice that highlight niches for intervention and promising solutions — and should be explored by analysts" (1987, p.176).

2.6 Summary

This chapter explained how, after reviewing models for policy implementation, McLaughlin's combined macro- and micro-level approach to the policy process was selected for this research. The approach is flexible and can be used to trace the policy process as it moves up, down, and across the various levels of action, and therefore was considered to be capable of capturing the complexity of the process related to the Food and Nutrition Policy for New Brunswick Schools.

The chapter then outlined a two-part conceptual framework. The first part of the framework outlined the stages in the policy process and the actions generally associated with each. The overview helps to situate implementation

in relation to the other stages in the process and explains why the analysis of implementation should be kept in the context of the overall policy process. Obviously, without the policy development stages of initiation, formulation and adoption, there would be no policy to implement. Moreover, events during these stages, and the social political attitudes that develop toward the policy, shape subsequent actions associated with it. If the inter-relationship between policy development and implementation is recognised at the outset of the policy process, approaches to implementation can be anticipated throughout policy development. Evaluation, the last stage, bridges policy development and implementation. It relates the objectives which were set during the developmental stages to what actually occurred during implementation. It provides feedback that can be used to make adjustments during the policy process and to help decide the fate of a policy.

The second part of the conceptual framework identified 'capacity' and 'will' as two important factors that influence policy implementation. Further, capacity and will should be examined within the nature of the policy, the milieu of the organisation, the approach to implementation, and local variability.

The conceptual framework also illustrates the challenge associated with examining the implementation of a health-promoting policy within education. While the literature from education and health are not dissimilar, the emphasis is different, perhaps as a result of the relative newness of health-promoting policies or of a different conceptualisation. Whereas education focusses more directly on the education-related goals and objectives of a policy, healthy public policy emphasises multiple outcomes, including the effect of the process on participants. Whereas education uses more concrete terms such as 'capacity' and 'will' and has identified strategies for implementation, health uses more abstract terms such as collaboration and comprehensiveness and is still developing patterns to guide the process of implementation. The analysis of the policy process as it occurred in New Brunswick, therefore, will provide

a useful example of how implementation actually proceeded in a particular case.

This conceptual framework permits an analysis that is sensitive to the nature of the policy. The approach allows flexibility because it uses an iterative approach. Most importantly, it provides an analysis of implementation that considers the context of the whole policy process, leads to the identification of key factors influencing the implementation of the New Brunswick policy, and can be used to develop recommendations for future action.

This chapter examined the implementation of healthy eating policies in schools at a conceptual level. Before the New Brunswick situation can be examined more closely, it is important to look at comparable situations in other jurisdictions to determine how they have addressed the issue of healthy eating. Chapter 3, the Literature Review, identifies the knowledge gap this research attempts to fill by situating the analysis of the New Brunswick policy within the context of other school nutrition policies and programs.

Chapter Three

Literature Review on School Nutrition: Problems and Responses

3.1 Introduction

Concerns about the nutritional adequacy of students' diets and problems of access to food in schools have existed since attendance at school became compulsory (Berger, 1990). Under the current economic conditions, and recognising the negative effect of social and economic inequities on health (see Evans, 1994; Whitehead, 1996), the problems of adequacy and access continue to be a concern. In recent years, these concerns have expanded to include the concept of moderation due to a better understanding of the relationship between diet and disease. These nutrition concerns — adequacy, access and moderation — have led a number of groups to call for action to improve the situation; and in some cases, central authorities and/or local educators have responded by developing nutrition policies or organising school-based interventions.

The literature relating to nutrition problems and solutions provides useful insights into the perceived role of the school in relation to the nutrition problems among school-aged children. This literature review examines how the problem has been conceptualised and by whom, what calls for action have been issued and by whom, and what responses have been made to these calls and the outcomes of efforts to improve the situation. While only two studies were found (Coles & Turner, 1993; Rose & Falconer, 1990) that directly examined the policy process regarding school nutrition, the other literature reported provides a context for the New Brunswick study and a basis for assessing the New Brunswick results and for guiding future decisions. The review indicates a gap that this research attempts to fill. For purposes of comparison, the review includes representative studies from Canada, England and Wales, and the United States, which, as Canada's more populated and nearest neighbour, heavily influences the actions of Canadians.

3.2 Documenting the Problem

The key nutritional concerns associated with school nutrition are problems of inadequate nutrient availability — often defined as lunches that provide less than one-third and breakfasts that provide less than one-quarter of the recommended daily intakes of calories and key nutrients; lack of access to food for needy students — defined in terms of the availability of free or subsidised meals or foods; and lack of moderation — defined as an over-consumption of foods that are high in fat, saturated fat, or sodium. Problems related to adequacy, access and moderation have been documented in a number of studies in Canada, Britain, and the United States, as illustrated by the summaries that follow.

3.2.1 Canadian studies to identify nutrition problems

Canada has taken limited action to document the extent of nutritional problems in schools. The three studies that follow indicate the type of work undertaken at the provincial and national level.

3.2.1.1 Foods Available in New Brunswick Schools

The New Brunswick Department of Health and Community Services (1990) conducted two surveys in provincial schools, the first in 1981-82 and the second in 1989-90. The purpose was to assess the extent to which schools provide nutritious foods. In both surveys, data were obtained by public health nurses, and participation by schools was high. In the second study, for example, 385 schools participated or 90% of all provincially-funded schools in the province.

The 1989-90 survey found that 57% of schools offered a school lunch program, up from 47% in 1981-82. The percentage of schools offering breakfast had declined from 7% in 1981-82 to 5% in 1989-90. There was no indication whether these programs were universally available or were only available to paying customers. As shown in Table 3.1, the availability of fruit

declined between the two surveys, while the availability of cooked vegetables, cakes and pastries, puddings and french fries (chips) increased. The availability of french fries more than doubled. In the 1989-90 survey, 72% of schools with canteens and vending machines sold potato chips (crisps) and 81% sold soft drinks (fizzy drinks). Almost half the schools (46%) sold food for fund-raising purposes. Two-thirds (67%) conducted some kind of annual nutrition promotion.

Table 3.1 Schools Foods in New Brunswick

Food Item	Availability in 1981-82 % of schools reporting	Availability in 1989-90 % of schools reporting
Fruit	95%	79%
Cooked vegetables	61%	81%
Cakes and pastries	57%	75%
Jell-O	54%	75%
Pudding	51%	76%
Salads	45%	69%
French fries	36%	73%

The 1989-90 report concluded that, while there was some overall improvement in the nutritional quality of food offered during the years between the surveys, much work was still needed. The report recommended the elimination of non-nutritious food items in order to strengthen the nutrition message provided by schools.

3.2.1.2 Foods Offered in Nova Scotia Schools

The Nova Scotia Nutrition Council, with the support of the provincial Department of Health (1993a), conducted a survey of all school principals in the province on School Food Provision Practices. The purpose of the survey was to provide information and momentum to help the educational community

begin to develop school food policies. The response rate was 76%, with completed surveys received from 394 schools.

The percentage of schools offering lunch was 72%, although not necessarily daily. Recess snack programs were also common, and were available in 63.4% of schools; however, only 14% of schools had breakfast programs. The ten most available foods in cafeterias, in descending order of availability were: white milk, hot dogs, pizza, submarine sandwiches, cold sandwiches, homemade soups and chowders, hamburgers, fresh fruit, cookies or other baked goods, fruit juices and hot lunches. Soft drinks were the most frequently available drink in vending machines. Nearly 80% of schools had no formal written food policy. It was common for foods to be sold for fund-raising, with 65.2% of schools raising money in this way. Popular foods to sell in fund-raising campaigns were hot dogs, chocolate bars, and baked goods. The profits supported school trips and were used to purchase school equipment and supplies.

The Nova Scotia report highlighted many issues of concern about the provision of food services in schools (i.e., were enough services available) and the nutritional quality of the food. The report recommended that school boards, with support from the Department of Education, take responsibility for developing school food policies to address the provision of food services for students, food safety, and sound nutrition, and that the Department of Education ensure that foods in the schools were consistent with the health curriculum, including foods sold for fund-raising purposes.

3.2.1.3 Food for Thought: School Board Nutrition Policies and Programs for Hungry Children — Canadian Education Association (CEA)

As a response to concerns about access to food for students in school, the Canadian Education Association (CEA) sent a questionnaire to 121 school boards across Canada to determine what kinds of programs existed to feed hungry students and what additional nutrition policies and practices were in

place (Canadian Education Association, 1989). The return rate was 60%, with 72 responses. The study found that schools offered a variety of programs for students, including inexpensive or free milk in eight school districts in the eastern provinces, snack programs in 11 districts, and free meals in 20% of districts (n=15). A number of other programs were characterised as “unique and innovative” (p.8) including: nutrition programs for aboriginal students; the Montreal Island School Council, which spent \$500,000 per year to offer a number of food services to 26,000 students; and programs that included an educational component in which students researched the causes of hunger or improved their food preparation skills.

When asked about nutrition policies, 68 (56%) of the 121 school boards responded. Twenty-seven boards (40%) had no policy while 30 (44%) had a nutrition policy that applied to all schools within their jurisdiction. Restrictions on the sale of foods such as soft drinks, potato chips, doughnuts, cookies, french fries, and chocolate bars were more likely to occur in elementary schools than secondary. Six of the school boards banned the sale of chocolate bars, candy, or other “junk food” for fund-raising purposes and an additional 13 discouraged this practice. Twenty school boards (29%) reported using the services of dietitians to assist them with their programs. Thirty-four boards (50%) reported that they included nutrition education as part of their curriculum or as part of special projects, such as Nutrition Week. The authors noted the wide variety of programs in Canada, particularly those addressed to younger students. They concluded that, while people might be discouraged by the limited impact of nutrition programs in schools, the nutrition habits of students had improved and their knowledge had increased in recent years.

3.2.2 British studies to identify nutrition problems

Four British studies were identified. These studies assessed a number of problems related to school nutrition.

3.2.2.1 The Diets of British School Children: England, Scotland and Wales

A study on the diets of British school children (Department of Health, 1989), conducted with a representative sample of 3,285 children, aged 10 to 11 and 14 to 15 in England, Scotland, and Wales, is the most recent and comprehensive assessment of school meals and student food intake. The results were based on self-reports kept by the students for seven days. Data were analysed using the national nutrition criteria for school meals in effect prior to 1980.

Prior to 1980 England had national guidelines on the provision of school meals, to address both adequacy and access. While adequacy is now left to schools, access is still addressed at the national level: either students qualify for a free meal or a subsidised meal. Local Education Authorities (LEAs), however, are required to provide a meal service only for students who qualify for the free meals (Berger, 1990).

Using the national criteria, the researchers found that school meals met the requirements for nutritional adequacy except that girls were likely to have lower than recommended intakes of iron, calcium, and riboflavin. Girls who ate lunch at restaurants were even less likely to meet vitamin and mineral criteria, especially for iron.

The guidelines for moderation (maximum 35% energy from fat) were not met. School meals provided 39-45% of energy as fat, and the daily intakes provided 37-39% of energy as fat. More than 20% of students consumed more than 40% of their daily energy as fat.

The report concluded that greater attention to moderation of fat would help lower rates of cardiovascular disease. It recommended that the energy levels of the meals be maintained but that levels of fat be decreased. This could be achieved by increasing the carbohydrate content of meals by adding pasta, bread, and potatoes.

3.2.2.2 Other British Studies

In addition to this major study, a number of other studies provided insights into nutritional problems in British schools. These include three studies conducted by the Caroline Walker Trust, a review of school policies and programs by Coles and Turner (1993), and a study of the health of school children by Mayall *et al.* (1996).

Between 1988 and 1990, the Caroline Walker Trust (1992) conducted three smaller studies with students aged 11 and 12. All three studies found that intakes of some nutrients were less than adequate, especially iron, and to a lesser extent, calcium, vitamin A, folate, zinc, and magnesium. Energy from fat contributed between 38 and 39% of the students' total energy intakes. School meals contributed significantly to the overall energy intake of students.

The 1992 analysis (Caroline Walker Trust, 1992) found that meals were high in vitamin C because they contained fruit juice and were high in fat because they included chips (french fries). School meals, compared with home lunches and other food sources, including stores and restaurants, provided the highest amount of protein, calcium, iron, and vitamin C, but were also high in fat (43% energy from fat). Foods purchased by students at stores or restaurants contained the fewest nutrients.

The report (Caroline Walker Trust, 1992) found that pricing policies on foods sometimes conflicted with the goal of dietary moderation. For example, the report noted that the heavy subsidy in the European Community on whole fluid milk and full-fat yogurts and cheeses made it uneconomical for schools to sell semi-skimmed (2%) milk. In 1990-91, for example, only 9% of the milk provided to schools was semi-skimmed.

The report discussed other sources of food in British schools, including tuck shops, vending machines, and vans that are sometimes allowed to sell snacks on school grounds. Companies often provide schools with monetary incentives to sell fizzy drinks, confectionery, and other snacks. Crisps (potato chips), snacks, sweets, and hot snacks were sold in 90% of schools: almost

25% of secondary students had two or more bags of crisps per day, and almost 50% had two or more chocolate bars or sweets (Caroline Walker Trust, 1992).

Coles and Turner (1993), in a review of school policies and programs, reported the following indicators of access to food by students. Overall, the proportion of children eating school meals was 42% in 1991, with 29% receiving free meals. They noted that, while identification of children who qualify for free meals is quite easy in primary schools, it becomes increasingly difficult in secondary schools with cash cafeterias; and that the “uptake” of free school meals declines with age. They also found that the number of food choices available to students increased with age. More primary schools had set meals, but these choices had also increased in response to a greater demand for vegetarian meals.

In 1996, Mayall *et al.* reported on a number of dimensions of children’s health in primary school, including food. Data were collected in two forms: first from a mailed survey sent to headteachers in 5% of all primary schools in England and Wales, and second, from a case study of six schools in various regions.

Of the 620 schools — 60% of 1,031 schools included in the study — that responded to the survey, 92% offered school meals and 45% provided additional foods. The foods that were most commonly sold were milk and crisps. Comments from the survey indicated that fund-raising pressures influenced schools’ decisions about what foods to sell. A number of comments were also made about the poor quality of foods sent from home, although 45% of the schools had some kind of stipulation about the types of foods that students could bring to school.

Only 10% of schools operated under specific nutrition policies. The researchers noted that responsibility for school foods was divided among various groups — caterers, school staff, homes, and children — and that the input of children was very small. In the case studies, the children were found to be knowledgeable about nutrition issues. Of the 256 children interviewed, an overwhelming 98% mentioned that diet was a factor that contributed to

health; and 64% considered at least some aspect of the food available in their schools to be unhealthy. In discussing the results, Mayall *et al.* (1996) noted the contradictions between the formal and informal agendas of schools, and how current conditions leave children ill-prepared to promote their own health. They recommended the development of policies to coordinate health and education so children could be empowered to achieve health.

3.2.3 American studies to identify nutrition problems

Two national studies were conducted in the United States to assess the nutritional value of school meals and their effect on children's intake and the types of programs and policies that operate in school food services. A third study used national data to report on food insufficiency.

3.2.3.1 School Nutrition Dietary Assessment Study: United States Department of Agriculture

The School Nutrition Dietary Assessment (SNDA) Study was conducted by the United States Department of Agriculture (USDA) in 1992 (Burghardt & Devaney, 1995a). The study had three objectives:

1. to determine the nutrient content of USDA breakfast and lunch meals offered to school students,
2. to measure the daily dietary intakes of student participants in these programs, and
3. to determine the dietary effects of the school meal programs by comparing participants with nonparticipants (Burghardt & Devaney, 1995b).

The USDA is responsible for school meal programs in the United States. The policy that governs these programs addresses nutritional adequacy and access needs of children, and has existed for over 50 years (see Raizman *et al.*, 1994). To fulfil adequacy requirements, school meals are required to meet a

number of nutritional criteria. Access to food for students usually means providing them with free or subsidised lunches or breakfasts, with eligibility determined by family income. Children are classified in one of three ways: (a) qualified for free meals, (b) qualified for subsidised meals, or (c) required to pay the full price.

In the SNDA study, a nationally representative sample of 545 schools provided information about all meals that were served during a one-week period. À la carte food items available from the cafeteria were not included. In addition, a nationally representative sample of 3,350 students in grades 1-12 were interviewed to obtain detailed dietary information for one 24-hour period (Burghardt, 1995).

The results indicated that the nutrient content of the school meals met the nutrient standards for adequacy for the most part. The results of the 24-hour intake data showed that male students, at all income levels, consumed more than 100% of the recommended daily level of vitamins and minerals. Female students between ages 11 and 18 did not meet the recommended daily level for minerals (Devaney, Gordon, & Burghardt, 1995).

With regard to meeting the access role of the program, lower income students were more likely to eat school meals (Gleason, 1995). More than three-quarters of students who were certified to receive a subsidised meal participated in the school lunch program, while fewer than half of the full-price students participated. The presence of a school breakfast program did not increase the likelihood that students would eat breakfast. Typically 12% of students skipped breakfast regardless of whether it was available in school or not. Participation rates in the breakfast program were approximately double for students whose family income was less than 185% of the poverty level.

Moderation guidelines were rarely met (Devaney, Gordon, & Burghardt, 1995): the average school lunch provided more fat, saturated fat, and sodium than recommended. The average lunch exceeded fat guidelines — 38% calories from fat versus the recommended 30%; saturated fat guidelines — 15% calories from fat versus the recommended 10%; and sodium guidelines

— 1,479 mg per meal versus the recommended level of less than 800 mg per meal. Only 1% of schools offered a school meal that, on average, contained less than 30% calories from fat, although 44% of schools offered at least one meal choice that was lower in fat (Burghardt, Gordon & Fraker, 1995).

Despite the availability of a lower fat option in many schools, the students made higher fat choices (Gordon & McKinney, 1995), as indicated in Table 3.2. The 24-hour intake data showed that overall fat intake was 34%, with 13% as saturated fat (Devaney, Gordon, & Burghardt, 1995). The cholesterol intake of 299 mg was slightly less than the maximum recommended daily level of 300 mg; and the sodium intake of 4,633 mg was almost double the recommended daily level of 2,400 mg. These results indicate that students who eat school meals do not lower their fat and sodium intake at other points in the day to compensate for the lunch meal so their overall intake is high.

Breakfast consumption also reflected food availability. School breakfast participants were more likely to consume milk, fruit juice or fruit, and meat; and less likely to consume dry cereal which was seldom available (Gordon & McKinney, 1995).

Table 3.2 Results from the SNDA Study

Dietary Component	Recommended Value	Average Values from School Meal	Consumed by Students
Fat Lunch Breakfast	<30% energy	38% energy 31% energy	37% energy 31% energy
Saturated fat Lunch Breakfast	<10% energy	15% energy 14% energy	14% energy 13% energy
Sodium Lunch Breakfast	<800 mg <600 mg	1,479 mg 673 mg	1,500 mg 840 mg

Students did not choose to eat lower fat meals for the most part. Further, a regression analysis by Gleason (1995) projected that if the percentage of calories from fat dropped below 32% for meals, student participation in the program would decline by 6-10%. The study found that fat intakes were related to the family income of the students. Over the 24-hour period, students from families with higher incomes consumed significantly less fat and saturated fat than lower income students.

The SNDA report examined specific aspects of the moderation concept by analysing the types of food available and factors influencing the nutritional quality of the food (Dwyer, 1995). They found schools that succeeded in lowering the fat levels of the meals did so by serving lower fat versions of traditionally popular foods such as low-fat hamburgers and meatless pizza. The availability of juice, lower-fat breads and bread products, and fruit on a daily basis were also positively associated with lower fat meal values. The lower fat lunches were also lower in total energy, carbohydrate, and protein. This may be undesirable for children for whom access to the meal provides a significant portion of their total energy intake, although it could benefit other children who struggle with over-consumption of calories.

Schools that did not meet the moderation recommendations were more likely to serve entrees with a high fat content such as regular hamburgers, pizza and hot dogs; either 2% or whole milk, with no 1% or skim milk available; and higher-fat bread products. Food-service personnel in these schools were more likely to use added fats such as butter or margarine when preparing food. French fries were an important marker of fat in school meals. Almost twice the number of schools that offered high-fat lunches made french fries available (38% of higher-fat lunches defined as having 35-40% calories from fat versus 20% of lower-fat lunches defined as having less than 32% calories from fat). Fifty-six percent of schools that offered very-high-fat lunches (defined as having more than 40% calories from fat) made french fries available (Chapman, Gordon, & Burghardt, 1995).

Snyder, Lytle, Pellegrino, Andrews, and Selk (1995) commented that the current situation in schools reflects the competitive environment of school food services. It has resulted in a shift so that "today's school food services sees students as customers and, as such, have shifted their focus from providing services for a feeding program to competing within the food industry" (p.247s). The authors' felt that these changes provided an excellent opportunity to make cafeterias a true learning laboratory.

Schools faced a number of challenges when trying to improve adherence to moderation principles (Chapman, Gordon, & Burghardt, 1995; Snyder *et al.*, 1995): limited budgets; limited opportunities for training food-service personnel; and the need to compete with other easily accessible foods (e.g., vending machines and à la carte items), to respond to customer demand in order to maintain participation and to conform to government regulations that conflicted with moderation (e.g., the requirement that full-fat milk be available to students). The authors concluded that student customers are not heavily influenced by health considerations when choosing food; instead homes, peers, television, and classrooms influence the normative aspect of eating. When these norms are supportive, healthier meal options are more attractive to students.

For the dietary goals to be met, the authors felt that both schools and families needed to make changes (Devaney, Gordon, & Burghardt, 1995). Dwyer (1995) cited the need for policies and programs to support the promotion of healthy eating. Changes to food services that schools could make included: decreasing the portion of meat required; removing the regulation that whole milk be available to students; providing healthier versions of fast foods if such foods are to be permitted; using promotional activities to market healthier foods; re-organising cafeterias (e.g., by creating salad bars, sandwich bars, or baked potato bars); giving the cafeteria more of a café feel through decorating; and displaying samples of the next day's meals (Pannell, 1995). Another important area where change was needed was for food-service staff to change their food preparation methods by: providing more fresh, frozen, or

canned fruit; serving raw vegetables with low-fat dips; using less ground beef; using cooking techniques to lower the fat content; using lower-fat prepackaged products and lower fat desserts; removing salt shakers; and seeking processed foods with lower sodium levels (Snyder *et al.*, 1995).

3.2.3.2 *School Health Policies and Programs Study USA: Centers for Disease Control and Prevention (CDC)*

The USA federal branch of Public Health conducted a national study on school health in 1994, the School Health Policies and Programs Study (SHPPS) (CDC, 1995). Its objective was to collect information that would help schools implement effective school health programs. The study included a survey of school food services at the state and district level and interviews with school personnel to obtain in-depth information about policies and programs. All 50 states received mailed questionnaires, as did a representative sample of public and private school districts. On-site interviews were conducted with middle/junior high and senior high school officials and food-service managers. Response to the mailed questionnaire was 100% for the states and 82% (n=413) for the districts; 79% of the districts approached agreed to the interviews. Data were obtained regarding the types of food services, policies, and educational activities at state, district, and school levels (Pateman, McKinney, Kann, Small, Warren, & Collins, 1995) as well as the nutrition education activities of teachers (Collins, Small, Kann, Pateman, Gold, & Kolbe, 1995).

Most schools had extensive food services (Pateman *et al.*, 1995). For example, most schools offered daily lunches (95.6%) and many offered breakfast programs (61.3%). Most schools had vending machines (77.7%), but in 94.6% of middle/junior high schools and 79.0% of high schools, their use was restricted to certain time periods. Table 3.3 shows the availability of specified foods in schools.

Table 3.3 Availability of Foods in SHPPS

Foods	Daily % of schools	Once per week or more % of Schools
Fresh fruit	47.0%	32.1%
Fresh vegetables	20.5%	40.0%
Fresh green salad	57.8%	28.8%
French fries	31.5%	35.4%

A number of states and districts had developed nutrition policies covering various aspects of school nutrition (Pateman *et al.*, 1995):

- approximately one-half of the states (45.1%) and districts (47.1%) had policies about the sale of foods (termed competitive foods) in the schools that might compete with school meals.
- approximately one-quarter of the states (25.5%) and one-half of the districts (51.3%) had policies on student use of vending machines.
- only 2% of the states but 58.7% of the districts had policies about students leaving school grounds during school hours.
- nearly four-fifths of districts (79.4%) permitted fast food restaurants to sell foods as part of school meals, but only one-fifth of schools (17%) had contracts with fast food restaurants.

States were more active than districts or schools regarding nutrition education (Pateman *et al.*, 1995). Most states actively encouraged nutrition education that linked cafeterias and classrooms (98.0%), with about half the districts (53.3%) actively helping schools with such co-ordination. The most common ways that states encouraged this kind of co-ordination included: providing ideas for nutrition-related events (88.2%), suggesting ways to involve food-service staff in classrooms (74.5%), and using the cafeteria as a learning laboratory (70.6%). At the school level, 19.1% of schools reported that students visited the cafeteria to learn about healthy eating, usually for

home economics classes. Food-service staff were guest speakers in 21.3% of schools and met with classroom teachers to co-ordinate nutrition education in 19.0% of schools.

The report on food services (Pateman *et al.*, 1995) found that states were supportive of implementing food preparation techniques according to principles of moderation, but these nutrition-enhancing preparation techniques were not practised consistently by districts and schools. The results also indicated that at the school level there was little collaboration between cafeteria staff and health education teachers. Such collaboration was more likely to occur at the state level. The report called for a renewed commitment to provide students with healthy food choices on a regular basis, and cited the need for food-service staff to receive professional preparation and for schools to recognise the benefits of collaboration within school health programs.

The SHPPS study found that nutrition education was a mandated component of health education in 69% of states, 80% of districts, and 84% of schools. The five most common nutrition topics covered in classes were: foods and nutrients (73%), healthy meals and snacks (73%), eating disorders (69%), the four food groups (68%), and social pressures to be thin (67%). The report on nutrition education recommended that greater attention be given to health during teacher training and through in-service education (Collins *et al.*, 1995). The concluding SHPPS report stated that while a foundation for health-related actions in schools already exists, much more could be done in the future (Kolbe, Kann, Collins, Small, Pateman, & Warren, 1995).

3.2.3.3 *The Third National Health and Nutrition Examination Survey (NHANES III)*

Alaimo, Briefel, Frongillo, and Olson (1998) analysed the Third National Health and Nutrition Examination Survey (NHANES III) to determine the extent of food insufficiency (i.e., not enough food to eat) among Americans of all ages. They found that food insufficiency was most prevalent among

children and younger adults. In 2.7% of all families, children younger than 17 had either skipped a meal or eaten less due to lack of money during the previous month. Within the low-income group, the prevalence of food insufficiency for children was between 15.0% and 16.6%. Problems of food insufficiency among children were not analysed in relation to participation in school breakfast or lunch programs.

3.2.4 Summary of nutrition problems in schools

The results of these studies indicate that schools are regarded as both part of the cause and part of the potential solution to the nutritional problems experienced by school-aged children. All studies appeared to accept that schools should be prepared to make changes, in conjunction with homes, to improve the current situation. Other points that arise from the review include:

- In countries where it has been studied, nutritional adequacy is most frequently measured in terms of school meals and has not been found to be a significant problem.
- Students in England and Wales and the United States who meet income-based criteria can access food through meal programs that give them free or subsidised meals. Students in Canada rely on programs organised on an ad hoc basis.
- While lower income students take greater advantage of access programs than higher income students, it is not clear that programs always fully reach their target group. For example, the presence of a school breakfast program in the SNDA study (Burghardt & Devaney, 1995a) did not influence whether students ate breakfast.
- The most prevalent nutritional problem in schools is moderation. Meals or foods available consistently do not meet moderation criteria for fat, saturated fat, or sodium.
- Policies that address the issue of nutritional moderation have been developed independently by various jurisdictions. Policies to address

nutritional adequacy and access tend to be coordinated at the national level.

- In the only study (SNDA, Burghardt & Devaney, 1995a) that examined choice, student choice was found to be heavily influenced by the foods available to them.
- In documenting the problem, the research has largely been carried out by health agencies. It is not surprising, therefore, that the problems were defined in terms of health (e.g., connections with possible health problems arising from food insufficiency or over-consumption of fat), rather than as problems of income (e.g., re-distributive income policies) or education (e.g., policies to educate children, families, and communities about nutrition).

3.3 Calls for Action to Address School Nutrition

The problems associated with school nutrition have not gone unnoticed. For example, two recent school-based health movements, Comprehensive School Health (CSH) (Health Canada and Canadian Association for School Health, 1993) and Health Promoting Schools (HPS) (Kickbusch, Jones, & O'Byrne, 1998), are advocating for change. As mentioned in Chapter 1, both groups support an integrated approach to health promotion in which nutrition is an important component. The groups advocate for expanded efforts in health education, greater provision of health-related services, and the development of health-supportive policies to improve school environments.

Other groups have also called for change, including the federal departments of health in Canada, England and Wales, and the United States. Their calls have centred on policy development as an appropriate means by which to address school nutrition problems. In Canada, the federal Ministry of Health called for the development of school nutrition policies in 1990 and again in 1996. In 1990, the Communications/Implementation Committee for the Nutrition Recommendations for Canadians identified schools as an ideal

setting for reaching children and adolescents (Health and Welfare Canada, 1990a). They recommended that provincial and municipal governments initiate school nutrition policies that were comprehensive and co-ordinated. In 1996, this was re-affirmed by another health initiative, *Nutrition for Health — An Agenda for Action* (Health Canada, 1996), which outlined an action plan for nutrition in the country. The plan stated that the type of food available in schools has a powerful influence on food choices and that students who would like to choose healthy foods often cannot find them within the controlled school food environment. In general, the plan advocated the use of public policy to create environments to promote health and nutritional well-being. More specifically, it recommended that schools implement policies and provide incentives to promote increased availability of healthy foods.

In England and Wales, the government recently published a White Paper on health (British Nutrition Foundation, 1999). While nutrition is a relatively minor topic in the report, it recognises the important contribution that diet makes to good health. In the plan, the government stated its intention to address school nutrition by re-establishing national nutritional standards for school meals and by promoting programs to increase students' awareness of healthy eating. The proposed re-establishment of meal standards reflects an earlier recommendation from a Green Paper on health released in 1997 and by an Expert Working Group on school meals, convened by the Caroline Walker Trust (1992). The rationale of the working group was that, as part of the "hidden curriculum," school meals have a strong effect on nutrition education and what children eat and therefore warrant attention.

Passmore and Harvey (1994) recommended that as part of improving school nutrition, schools form School Nutrition Advisory Groups (SNAG). These are groups consisting of teachers, students, caterers, and health professionals, who assume responsibility for the written nutrition curriculum, school meals and the provision of snacks, and for the establishment of "a consistent food policy with health as its main objective" (Passmore & Harvey, 1994, p.71).

The United States' *Year 2000 Health Objectives for the Nation* makes a number of references to the nutritional well-being of children and to school nutrition in particular (Splett & Story, 1991). This document recommended that schools provide healthy food selections and meals consistent with the *Dietary Guidelines for Americans* (U.S. Department of Agriculture & U. S. Department of Health and Human Services, 1990). It identified schools as one of the best mediums for improving the health and nutrition of children and emphasised the importance of establishing healthy eating patterns in childhood in order to reduce cardiovascular disease and other disease risk.

In 1991, the American Dietetic Association (ADA) called for the development and implementation of policies to address the problem of foods that compete with school meals (e.g., foods offered à la carte, or in vending machines or canteens). The ADA recommended that policies be developed at the state level to support school level efforts and further recommended that financial issues raised by the sale of competitive foods also be addressed.

Guidelines on promoting healthy eating in school, published by the CDC (1996), recommended that schools, under the umbrella of CSH, use a comprehensive approach to improve nutrition. In addition to recommending the development of school policies, the CDC also recommended the adoption of nutrition education in all school years, the use of behaviourally-oriented learning strategies, greater coordination between classroom education and school food services, training for school staff, the involvement of families and communities, and the evaluation of programs. The CDC guidelines made no recommendations regarding student access to food.

The CDC guidelines consider policy to be a powerful way to influence student behaviours, attitudes, and food preferences. Schools are advised to “adopt a co-ordinated school nutrition policy that promotes healthy eating through classroom lessons and a supportive school environment” (p.12). The guidelines also suggested procedures for developing such policy including:

- soliciting input from all key stakeholders — students, teachers, coaches, staff, administrators, food-service personnel, nurses, counsellors, public health professionals, and parents;
- formulating the policy using interview and survey information; and
- forming a nutrition committee to oversee the process.

The guidelines recommended that the policy document be brief yet comprehensive, reflect local needs, and include a plan for revising the policy. They suggested the policy include information regarding:

- links between school nutrition and other aspects of the school's comprehensive health program;
- the school's commitment to serve healthy foods that appeal to children,
- provisions for including nutrition in the curriculum;
- food-use guidelines for teachers (i.e., not using food as a reward or punishment for student behaviour); and
- strategies to link the school with nutrition professionals.

The guidelines provided little information on the process of implementing nutrition policies.

Only one article was found that expressed caution about the use of policy to promote health (Schmid, Pratt, & Howze, 1995). While, in principle, the authors supported the use of policy to improve health, in practice, they noted the following potential barriers:

... inadequate training for health educators and others in the philosophy and application of policy. . . lack of institutional permission for such activities within a state health agency's scope of work, resistance to change, and concern that individual freedoms may be reduced (Schmid, Pratt, & Howze, 1995, p.1210).

Schmid, Pratt, and Howze (1995) felt that such policies might receive better public acceptance if the public were encouraged to participate in the

decision-making process rather than having the policy presented as a *de facto* government mandate.

Overall, the calls for action indicate the importance health departments and agencies attach to promoting health within schools while, at the same time, pointing to the absence of calls for change on the part of educators. This is an historic problem that is fundamental to nutrition policies in schools. Nutrition is a marginal issue because the call for action comes from health personnel who are not in a direct position to implement change. Educators who are in such a position are often pre-occupied with other issues (Rose & Falconer, 1990).

3.4 Response to Calls for Action to Address School Nutrition

Although the position of nutrition in schools is relatively marginal, there has been some response to the calls for action. In some cases, policy has been developed and has been implemented or is in the process of being implemented. In other cases, groups have undertaken direct interventions to improve school nutrition that have not been policy based. This section analyses findings from policy and intervention actions to improve school nutrition.

3.4.1 Policy interventions to improve school nutrition

A review, analysis, and synthesis of policy interventions designed to improve school nutrition yielded the following findings:

- The response to calls for policy development regarding school nutrition has been mixed.
- School meals and nutrition policies are a low priority for schools and governments.
- Stakeholders differ in their priorities and concerns regarding school meals.

These findings are discussed in more detail in the next three sub-sections.

3.4.1.1 Finding 1

The response to calls for policy development regarding school nutrition has been mixed.

In Canada, England and Wales, and the United States, some policies have been developed to address nutrition problems in schools. For example, in New Brunswick, Canada, the Department of Education passed the policy that is the subject of this research, the Food and Nutrition Policy for New Brunswick Schools (see Appendix A) in 1991. Elsewhere across the country, the situation varies. For example, Alberta's Education Act contains guidelines on school nutrition, stating that all foods should be wholesome (Alberta Education, 1988). Nova Scotia (NS Department of Health, 1993b), Newfoundland (Newfoundland and Labrador Department of Health, 1995), and Saskatchewan (Saskatchewan School Trustees Association, 1993) have no policy, but have published guidelines for districts or schools to help them develop their own policies. In Saskatchewan, the guidelines were written by the provincial Department of Health but were published by the Board of School Trustees to make them more acceptable to schools.

In England and Wales, the Department for Education and Employment (DfEE) recently announced the creation of a National Healthy Schools Award to recognise schools' progress to meeting national criteria (DfEE, 1998). As a member of the European Network of Health Promoting Schools, the DfEE wants to develop a whole-school approach to health, which includes food and nutrition. Some schools have already targeted school nutrition for change; however, the development of policy is not always clearly part of their actions (Hickman & Healy, 1995).

In the United States, a major policy change occurred in 1994 when the USDA updated the school meal requirements to reflect the principles of moderation contained in the *Dietary Guidelines for Americans* (Kennedy, 1996). As part of the initiative, the USDA is providing extensive technical assistance and training and has established "Team Nutrition" to work with the media, schools, and communities to promote healthy eating. As well, the CDC

(1999) recently developed an instrument that allows schools to assess the status of their health promotion activities.

3.4.1.2 Finding 2

School meals and nutrition policies are a low priority for schools and governments.

This finding is based on two studies which focussed on school nutrition policies in England and Wales, the only two studies that dealt directly with the policy process. Rose and Falconer (1990) analysed school meals from a political perspective and drew on documentation from the government to trace the various decisions governments made about the meal program in order to explain present government policy. Coles and Turner (1993) assessed types of school meal services, the status of nutrition policies, successful practices, and managerial concerns of LEAs in England. A written survey was sent to all 109 Directors of Education with 93 (87%) responding. The questionnaire was followed by in-depth discussions and interviews with twelve LEAs.

Rose and Falconer (1990) attribute the government's low priority to school meals to the fact that responsibility for meals and expertise on the topic are divided. Three government departments share responsibility — Education, Health, and Social Security; and as a consequence no group is very committed. Rose and Falconer note that since 1945, none of the 13 Conservative election platforms and only two of the 13 Labour platforms have mentioned school meals.

The study by Coles and Turner (1993) revealed that LEA policy on the nutritional value of school meals was often lacking or weak in terms of requiring implementation or monitoring. While 91 of the 93 LEAs had nutrition specifications in their contracts, few required that these specifications be implemented. Sixty-two percent of LEAs had either a specific or general written policy on healthy eating, but only 10% were mandatory, and of these, it was unclear by what criteria the requirements were to be monitored or

assessed. Only 20% of the LEAs had policies about tuckshops, 16% about vending machines, and 33% about vans coming into schools. In the absence of policies, head teachers decided what was allowed. Schools appeared to often have informal policies about students leaving school during lunch time; only 19%, however, had formal policies. Coles and Turner (1993) summarised the situation as follows:

At present healthy eating is not a priority with the school meals organisation. Initiatives in healthy eating were carried out in many LEAs in the late 1980s. Major preoccupations now are efficient promotion of the service to sustain numbers and financial viability (p.54).

In some cases LEAs report that healthy eating principles that had been established are now being eroded as a result of financial cuts. It is essential that such erosion is halted (p.70).

3.4.1.3 Finding 3

Stakeholders differ in their priorities and concerns regarding school meals.

Rose and Falconer (1990) discuss conflicting goals and varying levels of concern among the various groups who deal with school meals. While nutritionists desire nutrition standards, treasury personnel seek cost efficiency, social policy experts express their concern about equity, and consumers want a satisfactory service.

The key concern of nutritionists is the lack of action on nutrition standards, which they attribute to the low priority of the issue (Rose & Falconer, 1990). For example, even though the Black Report of 1980 (cited in Rose & Falconer, 1990) argued strongly against giving children free choice about what to eat, the British government abolished national nutritional guidelines that year.

Treasury personnel have ongoing concerns about the cost of the program because school meals represent an expenditure that competes for money that could be used to buy textbooks and other resources (Rose & Falconer, 1990). The cost is considerable because funds for both free and subsidised meals are provided by the government. Social policy aspects of school meals are also problematic (Rose & Falconer, 1990). With regard to equity, means tests have always been used to determine eligibility, but are considered stigmatizing. One alternative, to provide free meals to all, would be very costly and would benefit those who are not considered needy.

Consumers want a satisfactory service. Rose and Falconer (1990) present two alternatives when discussing student choice: (a) meals could be provided according to nutritional standards, but this alternative implies that children, and to some extent parents, are unable to judge what is appropriate to eat; or (b) students could be given a choice of a main meal, a light lunch, or a supplement to food brought from home. Rose and Falconer conclude that the second alternative is the most efficient way to allocate services.

3.4.2 Direct interventions to improve school nutrition

Many direct interventions have occurred to try to improve nutrition in schools. For the purpose of this review, studies which used a comprehensive approach were included. Such studies tried to improve more than one aspect of school nutrition, for example, by combining classroom education directed at changing individual behaviours with changes to school food services directed at changing the food environment. The studies are heavily weighted towards American studies as Americans appear to have disseminated their results more widely than researchers in Canada or England and Wales.

Four comprehensive studies were reviewed:

1. CATCH, Child and Adolescent Trial for Cardiovascular Health, (Resnicow, Robinson & Frank, 1996),
2. Heartsmart (Hunter *et al.*, 1990),

3. Lunchpower (Snyder, Story & Trenkner, 1992), and
4. Kansas LEAN School Intervention Project (Harris, Paine-Andrews *et al.*, 1997).

These studies addressed cardiovascular risk factors and included nutrition as a component. Most of the studies attempted to improve the nutritional quality of school lunches and included a classroom nutrition education component. All studies targeted children in younger grades presumably, as CATCH states, to try to influence habits before they are fully developed. None of these studies targeted à la carte cafeteria items, vending machines, canteens, or tuck shops.

Four other, less comprehensive, studies were also reviewed. Hoerr and Loudon (1993) attempted to improve the availability of nutritious foods in vending machines, because adolescent Americans derive between 25 and 40% of their energy intake from snack foods. A Canadian study from Dartmouth, Nova Scotia (McIntyre, Belzer, Manchester, Blanchard, Officer & Simpson, 1996) reported attempting to change the food environment of schools, but did not specify which food services were targeted, while another Canadian study reported on school meal programs (McIntyre, Travers, & Dayle (1999). “Energizing the Classroom,” a universal breakfast program in elementary schools, was conducted in Minnesota (Minnesota Department of Children Families & Learning, no date).

CATCH, the largest of the studies reviewed (Perry, Sellers *et al.*, 1997; Perry, Stone *et al.*, 1990; Resnicow, Robinson & Frank, 1996), was a three-year (1991-1994), multi-site intervention aimed at promoting cardiovascular health by addressing nutrition, physical activity, and tobacco use in children in grades 3 to 5. The study was conducted in 96 randomly-selected schools; 56 were designated intervention schools and 40 as control schools in Louisiana, California, Minnesota, and Texas. A dissemination phase of CATCH is now underway to determine the extent of long-term implementation within the 96 schools involved in the earlier CATCH intervention, compared with 12 newly-recruited schools. In addition to measuring the extent to which CATCH materials and programs are used, researchers will also study the effect of the

school's social environment and organisational factors on implementation and institutionalisation.

Heartsmart (Downey *et al.*, 1987; Hunter *et al.*, 1990), another cardiovascular school health promotion program, was conducted in Louisiana. It developed from the Bogalusa Heart Study, a famous longitudinal study on cardiovascular health. Four elementary schools (K-6) were matched for racial, ethnic, and socio-economic characteristics. The intervention was carried out as follows: one school received a "general population" intervention (i.e., one appropriate for a general population) plus a high-risk strategy intervention. The second school received the high-risk strategy intervention only; the third, the general population strategy only; and the fourth school was the control.

The focus of Lunchpower was narrower than the other two studies (Snyder, Story & Trenkner, 1992). It aimed to reduce cardiovascular risk by decreasing the amount of fat and sodium in schools meals in 34 elementary schools in Minnesota, affecting 16,300 students over a period of five months.

Kansas LEAN was directed toward fourth and fifth grade students in an urban and rural school district (Harris, Paine-Andrews *et al.*, 1997). Two classes participated in the project to change the school lunch menu, classroom nutrition education, and student physical fitness using a community partnership.

Hoerr and Loudon (1993) tried to raise the quality of vended foods over a two-year period. During the first year, prior to the start of the intervention, baseline data about sales were collected from four vending machines. In the next two years of the study, the number of nutritious foods was increased in the machines; and in the second year, point-of-purchase nutrition information was added. Although the authors conducted their research in a university setting, the results are still relevant to this study.

The study in Dartmouth, Nova Scotia (McIntyre *et al.*, 1996), attempted to improve the mental and heart health of elementary students. The authors used a quasi-experimental field trial design to test the effect of a co-ordinated

approach to health promotion in 19 schools, in grades 4-6, for three years. The schools formed two comparison groups — ten schools in one community and nine in another. The heart health promotion included a nutrition component, but few additional details were provided about the study.

Nine breakfast programs in eastern Canada were examined for two weeks to one month using case study methodology to explore the relationship between the programs and nutritional and health inequities (McIntyre, Travers & Dayle, 1999). Data were collected through participant observation and through individual and group interviews with children, parents, volunteers, organisers, and administrators.

“Energizing the Classroom” (Minnesota Department of Children, Families, and Learning, no date) was a three-year pilot project, conducted in six elementary schools in Minnesota. During the pilot, each school adopted a universal breakfast program.

The review, analysis, and synthesis of these eight intervention studies yielded the following findings:

- Nutritional adequacy, maintenance of student participation, and moderation were common objectives of interventions.
- The cardiovascular interventions used a comprehensive approach involving changes to school food services, nutrition education, and actions to promote other dimensions of health such as physical activity. Training and resources were important components of the interventions.
- The interventions succeeded in moving school meals in the direction of moderation while, at the same time, programs maintained nutritional adequacy and student participation. The impact of vending machine sales on moderation requires further investigation.
- The interventions improved the dietary intake of students.
- The organisation of programs to improve student access to food have been questioned regarding their ability to reduce inequities among

children. One alternative to counter stigmatisation is to make the programs an integral part of the school day.

- Evaluations of interventions tended to be outcome-oriented rather than process-oriented and outcomes were usually measured in terms of health indicators not educational benefits.
- While researchers concluded that school policies and programs can improve student health and should be pursued, they also felt there were a number of factors which prevented the programs from fully meeting their goals.

These findings are discussed in more detail in the next seven sub-sections.

3.4.2.1 Finding 1

Nutritional adequacy, maintenance of student participation, and moderation were common objectives of the cardiovascular interventions.

The nutrition goals of the cardiovascular interventions — CATCH (Resnicow, Robinson, & Frank, 1996), Heartsmart (Hunter *et al.*, 1990), Lunchpower (Snyder, Story & Treknner, 1992), and Kansas LEAN (Harris, Paine-Andrews *et al.*, 1997) — were to lower fat levels to less than 30% energy from fat, and to reduce saturated fat to less than 10% and sodium levels to 600-1,000 mg, while maintaining nutritional adequacy and student participation. Heartsmart also targeted sugar levels. Access to food for students was not addressed by the studies.

The nutrition goal of the vending study (Hoerr & Loudon, 1993) was to increase the availability of nutritious foods and decrease the availability of less nutritious foods as measured by the Index of Nutritional Quality (INQ). As described by the authors, the INQ is a measure of nutrient density: the more nutrients per calorie offered by a food, the higher its INQ and the more nutritious it is.

3.4.2.2 Finding 2

The cardiovascular interventions used a comprehensive approach involving changes to school food services, nutrition education, and actions to promote other dimensions of health such as physical activity – training and resources were important components of the interventions.

The cardiovascular intervention studies were comprehensive, integrating changes to the school food environment and classroom education. CATCH (Resnicow, Robinson, & Frank, 1996) and Heartsmart (Hunter *et al.*, 1990) added a family component, and Kansas LEAN (Harris, Richter *et al.*, 1997) implemented the change using community partnerships.

In CATCH, for example, training of food-service staff to change the school food environment involved all stages of food services, from food procurement to meal promotion (Osganian *et al.*, 1996). Staff received an *EAT Smart School Nutrition Program Guide* containing 30 Eat Smart guidelines on how to improve the nutritional quality of meals, the *EAT Smart Recipe File*, a vendor product handbook, and a bimonthly newsletter. CATCH staff regularly visited schools to provide training and assistance for food-service staff and to monitor changes. Staff were also given suggestions for activities and promotional materials to encourage student and teacher involvement in school food services. Heartsmart (Hunter, *et al.*, 1990), Lunchpower (Snyder, Story & Trenkner, 1992), and Kansas LEAN (Harris, Paine-Andrews *et al.*, 1997) developed similar kinds of materials.

The CATCH (Perry, Stone *et al.*, 1990) and Heartsmart interventions (Hunter *et al.*, 1990) based their nutrition education curriculum for the classroom on social cognitive theory. The curriculum therefore did not focus only on changes to individuals, but was designed to help students recognise the interaction between their knowledge and behaviour and their environment. The curriculum focussed on health behaviours that could then be reinforced by the school environment and by parents. The intention was to give students an

opportunity to practice new skills and to model behaviours in an environment in which inconsistencies between classroom messages and school practices were reduced. In-service training for teachers was provided, with sessions and materials to explain the curriculum; support was provided for teachers during implementation. This approach was consistent with later recommendations made by Contento *et al.* (1995) regarding the provision of nutrition education for children.

The family component of the CATCH (Nader *et al.*, 1996) and Heartsmart (Hunter *et al.*, 1990) interventions consisted of encouraging families to create supportive environments at home and organising periodic heart-healthy recreational activities for families at schools. The community component of Kansas LEAN consisted of establishing partnerships among government agencies, businesses, the media, community groups, the library, and others to facilitate change (Harris, Richter *et al.*, 1997). Partners assisted with the health programs, changes to school policies, and the establishment of new programs (e.g., a weekly newspaper column devoted to the project). Harris, Richter *et al.* (1997) reported that the partnerships that were formed were considered important by the community and were felt to have had a positive influence on the change process.

3.4.2.3 Finding 3

The interventions succeeded in moving school meals in the direction of moderation while, at the same time, programs maintained their nutritional adequacy and student participation. The impact of vending machine sales on moderation requires further investigation.

With regard to moderation, the interventions achieved significant changes in a positive direction, while maintaining nutritional adequacy and student participation. In CATCH, for example, average energy from fat in lunches decreased from 38.7% to 31.9% in the treatment schools, and only changed from 38.8% to 36.2% in control schools, a difference that was statistically significant ($p < 0.0001$) (Osganian *et al.*, 1996). Texas reached the

goal of less than 30% energy from fat, the only state to do so. The results for saturated fat were less dramatic, but still significant ($p < 0.01$). Treatment schools dropped from 14.8% to 12.0% energy from saturated fat, a difference of 2.8%, while control schools dropped half that amount, from 15.1% to 13.7%. Sodium levels increased rather than decreasing to less than 1,000 mg, which was the goal. The levels increased by less than 100 mg in both control and treatment schools, although the increase was slight (from an initial level of approximately 1,200 mg to a final level of 1,300 mg). The results for CATCH breakfasts were also positive, reaching goals for both total fat and saturated fat; however, the control schools changed in a similar direction, resulting in no significant difference due to the intervention (Dwyer *et al.*, 1996).

In order to improve adherence to moderation, the most commonly adopted practices by food-service staff were to use standardised utensils for serving and measuring, and non-stick coating spray or pan liners (Osganian *et al.*, 1996). The goals for moderation were more successfully met in schools where food was prepared on-site rather than in cafeterias using a lot of pre-prepared foods. Two potential reasons were identified to explain why goals were not fully met: (a) program regulations required the use of higher-fat foods (e.g., whole milk) and (b) manufacturers increased sodium in lower-fat foods to compensate for flavour changes.

The CATCH results were obtained with no change in participation in either lunch or breakfast programs as a result of the intervention. Researchers noted that while 60% of the CATCH schools offered a breakfast program, student participation varied from 15% to 48% (Dwyer *et al.*, 1996).

The Lunchpower program (Snyder, Story & Trenkner, 1992) also achieved significant results with total fat decreasing from 39.8% to 28.5% between the pre- and post-test one year later. Sodium dropped from 1,136 mg to 1,036, but fell slightly short of the 1,000 mg goal. A key dietary approach in Lunchpower was to modify the nutritional value of foods that were already popular with school children. Pizza, tacos, chicken nuggets, french fries, hot dogs, and brownies, for example, remained on the menu but fat levels were

reduced through a number of techniques including draining and rinsing ground beef, seeking lower fat and sodium versions of products from food industry representatives, eliminating added salt, modifying dessert recipes to cut fat and sodium, and removing spreads such as butter or mayonnaise on sandwiches and breads and replacing them with lettuce or other vegetables.

Like CATCH, student meal participation during Lunchpower also did not change, remaining at 68% (Snyder, Story & Trenkner, 1992). Nutritional adequacy was met although, when energy from fat decreased, so did the total energy of the meal. In Lunchpower, this was a concern because the overall caloric value of lunches dropped from 720 kcal to 623 kcal. The authors felt that this might be a disadvantage to children who rely on school lunches for a substantial portion of their total energy intake, although it could benefit children who were concerned about an over-consumption of calories. In CATCH, total energy values also decreased but remained within the range of the USDA requirement by providing one-third of the recommended daily requirement for energy (Osganian *et al.*, 1996).

In the vending study by Hoerr and Loudon (1993), sales of nutritious foods increased and sales of less nutritious foods decreased as a result of the intervention. The treatment consisted of changes to eight food items in four vending machines. Sales of snacks with a high nutritional quotient (high INQ) increased from 9% of sales in the first year to 26% in the second year and 27% in the third year. Sales of low INQ snacks decreased from 59% in the first year to 35% in the second year and 36% in third year. Total sales in the vending study decreased with the shift to healthier foods. Total sales were highest in the first year when more low INQ snacks were available; and dropped to 85.7% of first year sales in the second year when most of the low INQ snacks were replaced with moderate or high INQ snacks. Sales recovered to 92.5% of first year sales in the third year. This result, as the authors note, is not insignificant because schools often rely on revenue from vending sales to support non-curricular programs. The authors felt that more study was needed before conclusions could be drawn.

3.4.2.4 Finding 4

The interventions improved the dietary intake of students.

It is one thing to change the nutritional quality of school meals, but it is another to see if student diets improve as a result. In the case of CATCH, for example, they did (Lytle *et al.*, 1996). Table 3.4 indicates the changes reported in 24-hour recall data from 1,182 students. These changes were achieved with no negative influence on the children’s growth.

Table 3.4 CATCH Student Intakes

	Baseline	Follow-up	p value
% Energy from fat Intervention: Control:	32.7% 32.6%	30.3% 32.2%	p <0.005
% Energy from saturated fat Intervention: Control:	12.8% 12.5%	11.4% 12.1%	p <0.005
Sodium Intervention: Control:	2,928 mg 3,042 mg	3,106 mg 3,168 mg	p < 0.05
Cholesterol Intervention: Control:	223 mg 281 mg	206 mg 225 mg	p <0.10

The vending study did not measure the effect of the intervention on overall dietary intake. The authors could not report, for example, if consumers compensated for their healthier dietary selections from the vending machines by eating less healthy choices at other times in the day.

3.4.2.5 Finding 5

The organisation of programs to improve student access to food have been questioned regarding their ability to reduce inequities among children. One alternative to counter stigmatisation is to make the programs an integral part of the school day.

Access to food was the focus of a Canadian review of school meal programs (McIntyre, Travers, & Dayle, 1999) and of the Minnesota intervention to provide school breakfasts (Minnesota Department of Children, Families & Learning, no date). In the Canadian review of nine programs, McIntyre, Travers and Dayle (1999) found that children who participated in the program were stigmatised in all but two programs. The participants were viewed as lacking social skills or as being greedy. The parents of participants were often blamed for neglecting their children. The authors noted the existence of a hidden curriculum that tried to influence children's social development and could contribute to feelings of dependency by the children. The authors concluded that the programs might be contributing to, rather than reducing, inequities.

The Minnesota Breakfast program tried to decrease the stigma attached to participation in the USDA school breakfast program by making breakfast universally available (Minnesota Department of Children, Families and Learning, no date). Participation rates jumped from an average of 12% with only half the students who were eligible participating, to an average of 86%. Breakfast was regarded as a vital part of the school day. Over 90% of parents who were surveyed felt the program was positive for their children and that the children were being served nutritious foods. The authors did not address issues of dependency.

3.4.2.6 Finding 6

Evaluations of interventions tended to be outcome-oriented rather than process-oriented and outcomes were usually measured in terms of health indicators not educational benefits.

All but one of the cardiovascular interventions reported only outcomes. In CATCH, researchers conducted an extensive process evaluation in order to better understand factors influencing whether expected outcomes were met, something that they noted was often lacking in similar studies (Raizman *et al.*, 1994). In a 1994 article, Raizman *et al.* outlined the steps in the evaluation; and in 1997, Perry Sellers *et al.* reported on the results. Their objective was to determine if it were feasible to implement CATCH in other jurisdictions. They based their conclusions on data collected over the three-year duration of CATCH: 214 teachers, 158 food-service cooks, 65 food-service managers, and 5,365 students in the intervention schools; and 149 teachers, 117 food-service cooks, 42 food-service managers, and 3,724 students in the control schools.

Perry, Sellers *et al.* (1997) describe four components which were assessed for the CATCH program:

1. **participation** was indicated by the attendance of food-service personnel (managers and cooks) and teachers at training sessions;
2. **dose** was indicated, in the school lunch component, by participation rates of students, and in the classroom component, by the sessions taught, completion of the entire lesson, the degree to which the curriculum guide was followed, and sessions completed without modification;
3. **fidelity** was indicated, in the lunch component, by the amount of fat, sodium, and cholesterol in lunches, the frequency of promotion activities for students, the degree to which EAT Smart guidelines were met, and the frequency of assessment; and in the classroom component, by teacher self-reports and observed implementation of activities; and
4. **compatibility** was assessed with food-service workers by asking about the importance of CATCH dietary goals, perceived support for

CATCH, and their confidence in their ability to implement the CATCH goals; and with teachers, by asking about their confidence teaching each session, the effectiveness in changing behaviour, the effectiveness of curriculum activities, the likelihood of teaching the curricula if not required, the importance of CATCH dietary goals, perceived support for CATCH, and their confidence in their ability to implement.

Results showed high levels of participation, with all schools staying in the study during the three-year period and with good attendance at training sessions by both food-service workers and teachers (Perry, Sellers *et al.*, 1997). The indications of dose were that CATCH maintained student participation in the school lunch program. Teachers taught a high percentage of curriculum sessions (95% by self-report) and 85% of the sessions were observed to be taught without modification. Fidelity was assessed as positive: fat and cholesterol levels were reduced in school lunches, although sodium levels were not; and teachers taught a high percentage of the educational activities. Compatibility results were also encouraging with both food-service staff and teachers indicating strong support for CATCH. Both groups felt confident in implementing the activities and teachers felt the curriculum would be effective in changing behaviours.

Perry, Sellers *et al.* (1997) attributed the high rate of participation to a number of factors including: the care with which schools were recruited, the extensive negotiation with schools prior to adoption, the signing of a formal contract with schools regarding the intervention, frequent communication with the school co-ordinator, and the high quality of the CATCH programs. They noted that training was either done during the workday for teachers or after work for food-service personnel, but with some remuneration for the latter group. Researchers felt that staff were more willing to attend training sessions when their schedules were accommodated and they were given reinforcement for participation. The authors concluded that more work is needed to find the balance between a sufficient dose of classroom education to cause change and a reasonable time commitment from schools. Fidelity and compatibility were

positive, a result attributed, at least in part, to the support schools received from CATCH staff.

Perry, Sellers *et al.* (1997) concluded that a number of factors contributed to the success of CATCH. Commitment from school districts contributed to perceptions of the importance of the program. Commitment of school administrators was important because of the critical role they played in creating change in schools. The principal influenced the behaviour of staff, set policy, and provided motivation and support. Communication between the organisers of the health promotion program and the schools was viewed as very important, as were adequate training, feedback about implementation, reinforcement for the efforts of all involved, and the ease with which program materials could be implemented. The involvement of the entire school was viewed as ideal so that the “norm of the school becomes one of healthy development and opportunities for students” (Perry, Sellers *et al.*, 1997, p.733).

The outcome measures of interventions such as CATCH (Resnicow, Robinson & Frank, 1996), Heartsmart (Hunter *et al.*, 1990), Lunchpower (Snyder, Story & Trenkner, 1992) and Kansas LEAN (Harris, Paine-Andrews *et al.*, 1997) were mainly health-related, focussing for example, on food availability, food consumption, and growth rates of children. The Minnesota breakfast program (Minnesota Department of Children, Families and Learning, no date), however, focussed on educational benefits. Even the presentation of the final report reinforced the educational aspects by incorporating classroom items such as chalk and pencils into illustrations and graphic presentations. As an educational outcome, the researchers measured learner readiness in a variety of ways, with positive results. Student attention and behaviour, measured by monitoring the number of ‘quiet room’ slips issued, both improved. Student visits to the nurse declined, resulting in fewer classroom absences and less loss of learning time. Test scores improved, although caution was expressed that this result might not be causal. The program received a positive response from parents, students, principals, and teachers, despite initial teacher concerns that it might take away from time spent on learning.

3.4.2.7 Finding 7

While researchers concluded that school policies and programs can improve student health and should be pursued, they also felt there were a number of factors which prevented them from fully meeting their goals.

While most of the studies reported positive outcomes, they still identified areas for future research. In CATCH, Resnicow, Robinson, and Frank (1996) concluded that more work was needed to understand how to modify the determinants of behaviour. They felt that while Social Cognitive Theory provided a sound base for the educational part of the intervention, more work was needed on using such theoretical components as self-efficacy, outcomes expectations, and self-regulatory skills. This conclusion was seen as especially true in school settings where not all educators would be comfortable using such change strategies.

Resnicow, Robinson, and Frank (1996) also discussed expectations about outcomes of school-based cardiovascular interventions. Even though positive changes occurred in dietary measures, serum cholesterol levels, diastolic blood pressure, and the body mass index of students were not significantly affected by the intervention. This led the authors to question the feasibility of achieving significant results from isolated programs or whether interventions must be an integral part of broader environmental and community actions that could foster changes to the psychological, cultural, institutional, and economic factors influencing health behaviour. In this regard, they recognised the limitations of the experimental design of the study that made it difficult to evaluate the complexity of these factors. They noted that results from experiments often only evaluate pieces of the broader systems' intervention, and these alone may be insufficient to affect the ultimate endpoints.

The Dartmouth study (McIntyre *et al.*, 1996) found that, in a city where there were already many actions to promote health, no treatment effect resulted from using a coordinated approach to health promotion in the schools. Individual aspects of the intervention, however, were successful.

The researchers in the vending study (Hoerr & Loudon, 1993) were concerned that an increase in healthy foods led to a decrease in overall sales. They drew attention to the scarcity of high INQ snacks that satisfy the same criteria as traditionally popular snacks in terms of shelf-life, ability to be stored at room temperatures, price, and taste appeal. They felt this was an area that deserved attention from food manufacturers.

3.5 Summary of the Literature and Gaps in Knowledge

The literature on school nutrition indicates that there are problems within schools and that these problems have been largely identified and described by health professionals with little involvement from educators. National departments of health in Canada, England and Wales, and the United States, as well as other health agencies, have called for action to address these problems, in particular, for policies which can help create school environments to promote health. Again, the voice of educators in calling for change has been absent.

The responses to the school nutrition problems have led to the development of some policies, but for the most part, school nutrition is a low priority for both governments and schools. Direct interventions have been undertaken to try to improve school nutrition and results from these programs indicate that school environments can be changed to improve the nutritional well-being of students.

Thus, the literature shows that interventions have been developed, implemented, and evaluated. The literature also shows that school nutrition policies have been developed and implemented but their implementation has not been studied to the same degree as interventions. What is missing, therefore, is information about school nutrition policy implementation and evaluation. If policy is going to become a widely-used instrument of nutritional change in schools, then the policy process, and the potential tensions between education and health promotion must be scrutinised and

explored to the same degree as direct interventions. The research being reported here represents an attempt to fill some of the gaps about how school nutrition policies are implemented.

This literature review, in addition to indicating why this research is needed, was helpful in providing direction for the analysis. At a fundamental level, it emphasises the importance of asking what the perceived nutrition problems of schools were and who identified these problems; what alternatives were proposed to address the problems and who proposed these alternatives; and who responded to the policy and how.

More specifically, the DfEE (1998) initiative of establishing rewards for schools raises questions about whether any recognition was given to schools or districts in New Brunswick that implemented the policy. The analysis by Rose and Falconer (1990) points to the importance of examining the priority given to nutrition and the implications of the issue for various stakeholder groups. Their analysis raises questions about the appropriateness of policies which guide student choices and whether such policies imply that students and parents are unable to judge what foods are nutritious. The review of the cardiovascular interventions reinforces the importance of examining the types of resources allocated to implementation, the level of district support for change, the role of the principals, the nature of communication surrounding implementation, the level of participation in the change, and the type of evaluation used to assess the policy. Works by Harris, Richter *et al.* (1997) and by Schmid, Pratt, and Howze (1995) emphasise the importance of studying the process to answer questions related to what partnerships were involved and what types of barriers to change were encountered. Chapter 4 describes the research methodology used to address these and other issues in the study.

Chapter 4

Research Methodology and Research Methods

4.1 Introduction

The purpose of this thesis is to analyse the policy process involved in implementing a policy to promote healthy eating in schools. The choice of research methodology, therefore, was guided by the need to understand the policy process. Additional considerations were to use a research approach that was inclusive and collaborative to reflect the health-promoting philosophy behind the policy, and to organise the results clearly so they could be readily applied.

This chapter describes the decision-making process that surrounded the choice of methodology and explains the specific methods used in the research. The chapter begins by detailing major methodological decisions: whether a positivist or naturalistic framework was more appropriate, and what methodological approaches were most appropriate to satisfy the research requirements.

The methodological decision-making process led to the selection of the case study method. The remainder of the chapter describes the components of a case study: the definition of the case, the propositions brought to the research design, the unit of analysis, characteristics of the researcher, methods of data collection and analysis, and steps taken to establish the trustworthiness of the results. The chapter then describes each of these components in relation to the New Brunswick case.

4.2 Positivist and Naturalistic Research Frameworks

In seeking to undertake research aimed at understanding a policy process, a major decision was required at the outset regarding which general methodological framework to choose: positivist or naturalistic. As Cohen and Manion (1994) state when discussing educational research, this decision is far-reaching because: “the choice of problem, the formulation of questions to be

answered, the characterization of pupils and teachers, methodological concerns, the kinds of data sought and their mode of treatment — all will be influenced or determined by the viewpoint held” (p.8).

Each research framework originates from a different knowledge base or epistemology. Positivist studies are conducted in controlled settings (Bowling, 1997). Positivists regard knowledge as objective and tangible and use research based on the scientific method to search for “universal explanation” (p.55). Naturalistic studies are conducted in natural settings (Merriam, 1988). Naturalistic researchers view knowledge as subjective and unique (Cohen & Manion, 1994), and use research methods based on close contact with the situation to enhance “interpretation, meaning and illumination” (Usher, 1996, p.18).

Each of these research frameworks carries its own set of assumptions. For example, the positivist approach is characterised by beliefs that: (a) events have causes that can be discovered and understood; (b) a single objective reality exists and can be discovered using observational methods; (c) the fewer explanations for a phenomena, the better; and (d) knowledge of the particular can be generalized to a larger group to provide an explanation of phenomena and serve as the basis for prediction (Cohen & Manion, 1994). Positivist researchers use scientific methods which . . .

. . . involve the systematic study of the phenomenon of interest by detailed observation using the senses, often aided by technical instruments, accurate measurement, and ultimately experimentation involving the careful manipulation of an intervention in strictly controlled conditions and the observation and measurement of the outcome (Bowling, 1997, p.102).

The process of investigation is designed to be systematic because it follows established rules; and rigorous, because it controls for alternative explanations and attempts to maintain objectivity. The process is usually deductive, whereby “the investigator starts with general ideas and develops a theory and testable hypotheses from it. The hypotheses are then tested by gathering and analysing data” (Bowling, 1997, p.104). Positivism is most closely associated with quantitative research methods, usually involving experimental or quasi-

experimental research designs (Cohen & Manion, 1994). Some researchers have replaced the term positivist with postpositivist (Denzin & Lincoln, 1994; Miles & Huberman, 1994). The methods of the two are the same, but postpositivists believe that while knowledge may be approximated, it cannot be fully known (Denzin & Lincoln, 1994).

Researchers conducting naturalistic studies vary in their research tradition. Miles and Huberman (1994), for example, distinguish between three types of qualitative data analysis: interpretivism, in which human activities are analysed for how they symbolically express meaning; social anthropology, in which close, ongoing contact with people becomes the basis for detailed descriptions of their experiences; and collaborative social research, in which a group's collective action to achieve change is researched while it unfolds. Although each naturalistic research tradition has its own characteristics, all of them assume the following: (a) there is more than one truth because individual realities are constructed through interactions; (b) because of this, multiple explanations are possible; and (c) subjectivity is seen as integral to the research process and as such, deserves recognition and examination (Merriam, 1988). In the research process, meaning is explored within the context of social practices of both the research participants and the researcher.

Naturalistic research approaches tend to be inductive; observations are developed into concepts in relation to particular data and these are then used to generate theory. The process begins with the researcher learning more about the situations of the research participants in relation to their history, society, and culture. At the same time, researchers must be aware of how they are situated in relation to the research and the perspectives they bring to the process. Throughout the process, researchers must remain open to new understandings to maximise the usefulness and learning value of the research for themselves and others. The results of naturalistic studies are most frequently analysed using words to contrast, compare, or find meaning. They are most closely associated with qualitative methods which permit the study of relationships and their consequences. Qualitative research methodologies

include “grounded theory, ethnography, the phenomenological approach, life histories, and conversational analysis” (Strauss & Corbin, 1990, p.21).

4.3 Methodological Frameworks for Policy Analysis

If one reviews the literature in policy analysis, seeking direction about whether to choose a positivist or naturalistic framework, the result is ambivalent. Researchers who focus on analysing policy alternatives are likely to choose quantitative methods. Rist (1994) has termed this an engineering approach, whereby decision-making is considered an event and the goal is to find or create conditions for success. For example, one textbook on policy analysis, written to help policy-makers increase their effectiveness, explains the use of various mathematical models and how they can be applied to policy problems (Stokey & Zechauser, 1978). A more recent text on educational policy (Cizek, 1999) contains three chapters on methods; two of these chapters discuss quantitative methods and one discusses mixed qualitative and quantitative methods (mixed-method designs). At the conclusion of the latter chapter, the author, Creswell, states, “This chapter suggests that mixed-method designs are beginning to emerge in policy research” (Creswell, 1999, p.470).

Researchers such as Finch (1986) and Rist (1994) recommend the use of a naturalistic framework for policy research. Rist (1994) notes that a certain perspective is needed before such a framework is perceived to be useful: policy must be regarded as a *process* of decision-making in which people want to “create a contextual understanding about an issue, build linkages that will exist over time, and strive constantly to educate about new developments and research findings in the area” (p.547). This contrasts with the engineering approach and is termed an enlightenment function of research.

Like Rist, Finch (1986) encourages the use of qualitative research in the study of policy. She argues that a qualitative approach possesses strengths not found in quantitative methods. “First, it studies social process and social actions in context, and second . . . it reflects the subjective reality of the participants, the people who are affected by the policy” (p.164). Additional

strengths are that qualitative research is usually conducted over a period of time so it offers insights based on longitudinal data. Qualitative research based on a theoretical framework can assist in the development of theory which can then be tested through empirical studies.

Books on research methods from education (e.g., Cohen & Manion, 1994) and health (e.g., Bowling, 1997) present both positivist and naturalistic methodologies as research possibilities. In short, the literature from the fields relevant to this thesis indicate that there is a place for both positivist and naturalistic studies, depending on the research goals.

The decision as to which methodology was most appropriate for this research was based on the purpose of the research: to analyse the policy process involved in implementing a policy that aimed to promote healthy eating in schools. This purpose strongly suggested the use of a methodological approach that would elicit people's explanations and views of the process, and assess these multiple explanations in context. These requirements therefore made the naturalistic approach, the "natural" choice.

This decision necessitated a second decision about whether *all* data would therefore be qualitative. Some researchers feel strongly that positivism is exclusively aligned with quantitative methods and naturalistic studies with qualitative methods. They believe that the world views and assumptions that surround each are too different to allow mixed-methods research (Smith 1983). Miles and Huberman (1994) dismiss the positivist-naturalistic debate and argue strongly that both numbers and words are required to understand phenomena. Merriam (1988), however, believes that while there is "no accommodation at the paradigm level" (p.2) due to the problems associated with trying to reach conclusions across the two frameworks, there is some flexibility at the method level. Others (e.g., Finch, 1986; Patton, 1990; Strauss & Corbin, 1990) agree that qualitative and quantitative methods can be mixed under certain circumstances. This view is known as a pragmatic approach which Patton (1990) notes as being one strategy for increasing the trustworthiness of results.

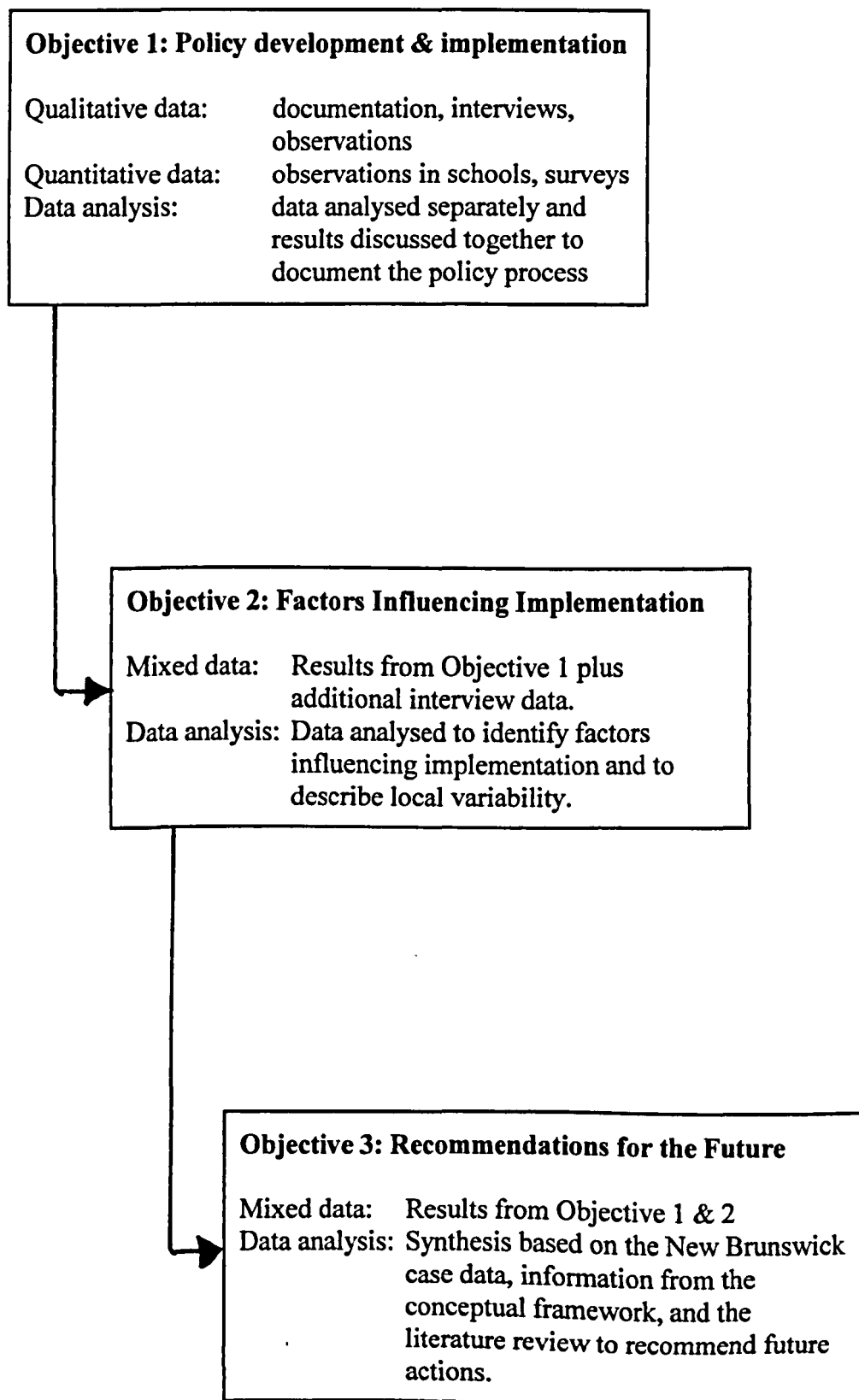
Strauss and Corbin (1990) suggest that the two types of methods can be complementary, each providing data the other cannot.

Regarding the New Brunswick research, the qualitative-quantitative issue was resolved by deciding that the over-riding question that would guide data collection would be, “what information will help explain the process of implementation?” This meant retaining the option to combine methods. In the end, most data were qualitative. Quantitative observational data were gathered to describe actual food purchases by food-service customers. These data increased the trustworthiness of the qualitative data gathered through interviews. Other quantitative data were gathered through surveys of students, which extended the usefulness of the data from interviews with students. This model is known as a convergence model, that is, both the qualitative and quantitative data were collected and analysed simultaneously (Creswell, 1999). The data collection and analysis methods used for each of the three research questions outlined in Chapter 1 are shown in Figure 4.1.

4.4 An Overview of the Case Study Approach

Having decided first, to use a naturalistic framework and second, to employ mainly qualitative methods, the need for a third decision arose. Which qualitative method would be most appropriate? The choice is wide, as illustrated by the strategies outlined in Denzin and Lincoln’s (1994) handbook. Tesch (1990) recommends the use of the case study approach when the purpose of the research is to increase understanding. Yin (1984) defines a case study as “an empirical inquiry that: investigates a contemporary phenomenon within its ‘real-life context’ when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (p.23). Case studies are useful when the researcher is interested in answering “how” and “why” questions.

**Figure 4.1 Data Collection and Analysis Methods
in Relation to the Research Questions**



A case study is particularly suited to this research because it contributes to understanding the policy process: “The case study allows an investigation to maintain the holistic and meaningful characteristics of real-life events — such as . . . organization and managerial process” (Yin, 1989, p.14). With regard to the New Brunswick policy, the case study permitted the investigation of the complexities of a situation and the exploration of how time shapes events. Case studies also permit first hand accounts of events and allow for differing opinions to be presented (Rossman & Rallis, 1998). Collecting data about a process, as in the process of implementation, calls for monitoring and seeking causal explanation. Monitoring entails “describing the context and population of the study, discovering the extent to which the treatment or program has been implemented, providing immediate feedback of a formative type, and the like” and seeking causal explanation involves “discovering or confirming the process by which the treatment had the effect that it did “ (Reichardt & Cook, 1979, as cited in Merriam, 1988, p.21).

Case studies may take a variety of forms. They may be mainly qualitative or quantitative; they may consist of single or multiple cases; and within each of these, single or multiple units of analysis may be used (Yin, 1989; Stake, 1994). There is no particular method associated with conducting a case study, nor are there specific methods of analysis; rather, a case study is defined more by the research questions and their relationship to the end product (Merriam, 1988). Defining the case is an important first step. Miles and Huberman (1994) recommend that researchers describe its conceptual nature, social size, physical location, and duration. Yin (1989) identifies several key components of a case study including: the study’s propositions, units of analysis, the desired characteristics of researchers, methods of data collection and analysis, and the establishment of trust. These components are described in theoretical terms in the next five sub-sections and are then discussed in relation to the New Brunswick case.

4.4.1 Propositions

When a researcher designs a case study, he or she usually begins with propositions that will guide the study. Propositions are statements that direct attention to aspects that should be included in the study (Yin, 1989). These propositions may come from theory, other research, or from the researcher's prior experience with the case.

4.4.2. Units of analysis

The selection of the case is an important consideration. A case may have unique qualities that make it of particular interest (intrinsic case study) or it may be used to provide insights into a general issue or to build theory (instrumental case study). The most significant factor influencing the selection of a case or cases is the potential for learning it offers (Stake, 1994).

Within the case, sampling is another important consideration. Usually, samples are selected to serve a specific purpose rather than randomly. Examples of purposeful samples include: extreme examples of the phenomenon, either negative or positive; intensity samples that are strong but not extreme examples; and representative samples. Additional methods of sampling include: using pre-established criteria, following a chain of potential samples that arise from discussions with others (snowball technique), and taking opportunities that arise (opportunistic sampling) (Patton, 1990).

There are four basic case study designs:

1. single case with a single unit of analysis,
2. single case with multiple units of analysis,
3. multiple cases with a single unit of analysis, or
4. multiple cases with multiple units of analysis.

Having multiple units of analysis strengthens the research because it helps guard against the researcher remaining ignorant that case-related conditions have changed such that the entire nature of the study has changed. If multiple units of analysis are used, the researcher must remember to conduct the analysis in consideration of the whole unit and not just stay at the level of the

sub-units. Multiple cases give robustness to a study as they provide added information and insights.

After the research design is complete and prior to data collection, a pilot case may be conducted. This involves choosing a sample, usually for convenience, and doing each step of the case study. A pilot case study will assist with actual data collection content and procedures (Yin, 1989).

4.4.3 The desired characteristics of the researcher

In qualitative studies, the researcher is the primary research instrument and therefore requires certain skills, as well as experience in applying these skills. Case study research is challenging because the methods used in each case are unique; there is no routine approach to data collection or analysis. Researchers must therefore be able to recognise what action is called for at a particular time (Yin, 1989). There are, however, a number of skills that facilitate case study research. Yin (1989) identifies the following:

1. **Topic knowledge.** The more researchers know about the topic, the better positioned they will be to make the many choices that are required during all aspects of the research process.
2. **Adaptiveness and flexibility.** Researchers need to be prepared to alter plans or make new ones if and when a situation changes or new opportunities arise.
3. **Ability to ask questions and listen.** Researchers need to think carefully about what it is they want to know and to then formulate questions that will yield this information. Researchers must also be good listeners so that they remain open to new ideas and differing views. All this involves being close observers of human interaction, people's choice of words, what they choose to say or leave unsaid, and their body language. Researchers must also bring their observational skills to the collection and analysis of other types of evidence used in case study research, such as documents and artifacts.

Yin (1989) also cites a lack of bias as an important quality. He states that conducting a case study to prove pre-conceived opinions is of little value. Others believe that subjectivity is unavoidable and that the most appropriate action is for researchers to acknowledge the prior perceptions, opinions, and experiences they bring to the case (Usher, 1996).

4.4.4 Data collection methods and analysis

Once a case is selected, the process of observation, analysis, and consultation begins. This process will be unique to the specific case. Each will vary in terms of what is observed, the amount of time allocated to observation, library research, analysis, and consultation; and in the overall length of time the research takes.

Yin (1989) describes the several types of evidence that can contribute to case studies. The selection of a particular method or methods depends on the purpose of the research in consideration of the strengths and weaknesses of each type (Patton, 1990). In using any type of evidence, it is important that researchers collect descriptive data using the language of participants. The various types of evidence are described as follows:

1. Documentation, which includes letters and other correspondence, minutes or agendas of meetings, administrative documents, evaluations, or news stories in the mass media (Yin, 1989). Documentary evidence is normally a part of all case studies. It adds information to the case and is used to corroborate information from other sources. Like other forms of data, documents must be subjected to critical analysis.
2. Archival records, including organisational and personal records from the past, and maps, charts, and survey data pertaining to the site (Yin, 1989).
3. Physical artifacts, such as tools, art, crafts, or other objects that provide additional insights into the research question (Yin, 1989).
4. Direct observations made during visits to the case study location. Observations may be formalised, in that the researcher has pre-

determined what specific behaviours will be observed, or observations may be less formal and used to enrich the case, rather than being the main focus (Yin, 1989).

5. Interviews provide a common type of evidence that is used to gain factual and subjective information (Yin, 1989). Patton (1990) identifies three main types of interviews:

- the very open, informal conversational interview;
- the semi-structured interview, in which the interviewer uses pre-formulated questions as a guide but is not bound by them; and
- the standardised interview, in which the same format is followed with each participant.

In designing the interview, the type of questions to include is a key consideration. Questions may cover knowledge, opinions about experiences, emotions, the impact of an event, or demographic information (Patton, 1990). Although the sequence of questions may vary, Patton suggests beginning the interview with questions that elicit straightforward, descriptive responses before asking about interpretations or skill-based questions. Demographic information is usually saved for the end. Great care must be taken to construct individual interview questions that are clear, unbiased, unambiguous, and elicit descriptive information. Likewise, establishing rapport and encouraging people to talk can be accomplished through: paying attention to the introduction to the interview and to transitions between questions, observing the oral and body language of the participant, using probes to elicit further detail, developing strong listening skills, and using reinforcement to increase the confidence of the participant in his or her responses. Interviewers must be willing to receive information neutrally, so that participants feel comfortable sharing their honest opinions (Patton, 1990).

6. Participant observation is the final form of evidence in case studies. Glesne (1999) conceptualises participant-observation as a four-point continuum ranging from:
- a. strict observation and no participation, to
 - b. minor participation (observer as participant), to
 - c. major participation (participant as observer), to
 - d. a situation where the observer fully participates in the case under study (full participant).

Deciding which point along the continuum to situate oneself as a researcher depends on the nature of the research, the type of observation needed to understand the research setting, and the participants and the nature of their behaviour (Glesne, 1999). Researchers who become full participants can generate useful data, as long as the researcher can gain entry to the group, can maintain awareness of the perspective he or she brings as a participant, and is not overwhelmed by the dual role of participant and observer. Full participants may be well positioned to give an insider's view and also may influence actions that are taken by the group (Yin, 1989).

Regardless of the variety of evidence used in a case study, all studies share a common feature: researcher's field notes. Field notes are comprised of descriptions, including observations, records of conversations, or diagrams; and interpretations, such as the researcher's emotional reaction to an event or opinion of a conversation. Field notes are written throughout the period of data collection.

In a case study, analysis is ongoing during data collection and influences its direction. An important first step in the analysis is to review the data, organise, and code it. This can be completed by hand or by using a specialised computer program. Patton (1990) recommends that the researcher compile an in-depth (thick) description of the case.

Once the data have been described and organised either chronologically or conceptually on the basis of preliminary interpretations, a major interpretive

layer can be added. This consists of reviewing the data to identify patterns and themes. These patterns may be arrived at inductively, may originate in the data or be derived by the researcher, or may be related to the original propositions. The next level of analysis consists of generating typologies or displays which provide a visual way to present the findings (Miles & Huberman, 1994). The two main types of displays are matrix patterns, with defined rows and columns; and networks, which are a series of linked information (Miles & Huberman, 1994). Patton (1990) warns, though, that it is important not to force the data into artificial categories.

4.4.5 Establishment of trust

An essential element of any qualitative study is trustworthiness. Readers must trust that the study was conducted using a sound research design, that the methods of data collection and analysis were appropriate, and that the rationale for the conclusions was clearly evident. The more readers are given insight into how the research process unfolded, the better able they are to assess trust. In qualitative research, the elements of trust are: credibility, transferability, dependability, and confirmability (Marshall & Rossman, 1989).

Credibility is enhanced when readers trust that the case was accurately identified and described, and collection methods made explicit (Marshall & Rossman, 1989). Research gains credibility when the researcher provides in-depth descriptions of the case, drawing on original data and clearly stating the parameters of the case.

Transferability is the extent to which findings are applicable to another situation (Marshall & Rossman, 1989). Case studies focus on the particular so there is usually little attempt to generalise the findings. When researchers clearly explain the results and describe the theoretical parameters of the case, readers are then better positioned to decide if the case can be generalised to their situation. Transferability is also enhanced by triangulation, or the use of multiple approaches to the same subject. By arriving at the same point but from different origins, trust in the results is increased. Patton (1990)

describes three types of triangulation: methods, analysts, and theory.

Triangulation of methods means combining quantitative and qualitative methods or using more than one qualitative method to study the same thing.

Triangulation of analysts involves having more than one person analyse the same data or at least having participants review what has been written about them (member-checking). Triangulation of theory involves bringing different theoretical perspectives to the same analysis.

The third element of trust, **dependability**, is achieved when the researcher accounts for changes that occur in the case environment while it is under study or to changes in the research design (Marshall & Rossman, 1989). This allows readers to more fully understand what happened during the research. It reflects the perspective of naturalistic researchers that the world is ever-changing and that the study's findings can never be precisely replicated.

Confirmability is the extent to which research findings can be verified by another researcher (Marshall & Rossman, 1989). This safeguards against a biased interpretation by the original researcher. Actions a researcher may take to enhance confirmability include: having a colleague critique the analysis, searching for negative cases, checking and re-checking the data, taking one set of notes that is only descriptive and a second that combines description and interpretation, using tests to check the data, and establishing a clear record of the research process by keeping thorough notes and organising all data in a form that can be retrieved and used by others.

Patton (1990) summarises the process of establishing trust by stating that it entails discussing the epistemological basis for the study and its assumptions; the techniques and methods used to ensure integrity, validity, and accuracy; and the researchers' qualifications, experience, and perspective.

4.5 The New Brunswick Case

Having determined that the New Brunswick research would be most productively conducted using a naturalistic framework involving the collection of mainly qualitative data, and that the research questions lent themselves to the use of the case study approach, it is now timely to explain the methods used in this particular case. The case consists of an analysis of the implementation of a provincial nutrition policy by the New Brunswick Department of Education. It is a single case study with multiple units of analysis. The research questions are “how” and “why” questions that centre on how the policy was implemented, why there were problems with implementation, and how future implementation might be improved.

Every case study is defined within certain parameters. This is a case study of a process, something less tangible than studying members of a group or a particular site. Nevertheless, the case is bounded by subject, time, location, language, and stakeholders. The subject is the process associated with the implementation of the Food and Nutrition Policy for New Brunswick Schools. Contemporary data were collected between 1997 and 1999; historical data covered the period from 1990 to 1996.

The case is located within the province of New Brunswick, specifically at the macro-level within the offices of the Department of Education, within school districts, and at the micro-level within schools. Language also proved to be a parameter. In New Brunswick, both English and French are official languages. The Department of Education is divided into Anglophone and Francophone sectors and there are separate English and French districts and schools. The research emphasis was on the Anglophone sector due to concern that nuances of communication would be lost by an insufficient grasp of French. This decision suited departmental staff because they felt implementation was more of a problem in English districts and schools. The reasons for this difference were not the focus of this study. One departmental employee commented that the curriculum in Francophone schools had a stronger nutrition-health component which may have made the policy more

acceptable to Francophone school principals (Landry, personal communication, September 1999). It is also possible that the Francophone schools were more accepting of the implementation strategy employed by the Department of Education. In any case, a decision was made to focus on implementation of the policy in Anglophone districts and schools.

The most difficult parameter to establish was the identification of stakeholders in the policy process. A stakeholder was defined as a person who was involved with implementing the policy or who was a member of a target group affected by the policy. The New Brunswick case included the following stakeholders:

- personnel in the departments of Education and Health and Community Services who were responsible for developing the policy and overseeing its implementation
- district nutrition representatives
- school principals
- teachers with nutrition-related responsibilities or those involved in food fund-raising activities
- students affected by the policy
- parents involved in nutrition-related activities or those actively involved in other school activities
- school food-service personnel
- public health nutritionists

One potential stakeholder group, representatives of food manufacturers and suppliers, was not included because, although they could be affected by the policy, it would only be in response to initiatives by a district or school. One powerful company in New Brunswick, McCain Foods Ltd., had lobbied the government during implementation, so could have provided interesting information. The Department of Education, however, asked that they not be approached because of the political nature of the government's relationship with the company. The Department was very supportive of the research in

general, so this request was heeded. As well, there was no desire to have the company lobby to have the research curtailed.

Community food-outlet operators who rely on student customers were a second potential stakeholder group whose business could be affected by the nutrition policy. For the purposes of limiting the case, however, a decision was made to not include them unless they were an issue for a specific school.

4.5.1 New Brunswick propositions

The research was undertaken with certain propositions that resulted from my involvement with the policy during its development and my ongoing interest in it. Thus, I already knew some of the events associated with the policy, a number of the stakeholders, and was aware of negative reactions by schools to the implementation strategy. This knowledge alerted me to areas I needed to investigate further:

- the level of will to implement the policy on the part of stakeholder groups who strongly opposed it when it was announced;
- the influence of the policy's perceived threat to school-based fundraising and stakeholders' opinions about the role of schools in promoting healthy eating — I was aware that opinions were mixed;
- the explanations by staff from the Department of Education regarding why the policy had not been satisfactorily implemented; and
- the amount of attention still being paid to the policy by the Department, districts, and schools, given that there was no longer a departmental nutrition committee.

Likewise, the literature reviewed in the last chapter indicated a number of aspects of the implementation process that warranted investigation.

4.5.2 New Brunswick units of analysis

The implementation of the Food and Nutrition Policy for New Brunswick Schools was chosen as the case because of what might be learned that could be used to improve the health of students. This policy was of

particular (intrinsic) interest because it was a New Brunswick policy and the plan was for it to be the basis of ongoing research on school nutrition in the province. There was also the potential that the case could provide insights others would find useful (instrumental value) since the issue of nutrition policy development and implementation in schools is not limited to New Brunswick.

The research consisted of the study of a single policy, making it a single case. It covered three organisational levels — departmental, district, and school — which permitted multiple units of analysis within the case. The samples selected at each level are illustrated in Figure 4.2. All research activities occurred with the support and cooperation of the New Brunswick Department of Education. Departmental staff members were very receptive to the study, provided monetary support and access to documentation, responded to questions about departmental activities, and facilitated district and school based fieldwork.

Sampling at the departmental/provincial level was relatively simple because there were relatively few stakeholders. The sample consisted of all the people who had worked most closely with the policy: the three members of the departmental nutrition committee, and the former and current Directors of the Curriculum Development Branch for the Anglophone sector who had supervised the committee's work. In order to add outside views to the provincial perspective on implementation, interviews were conducted with the president of the New Brunswick Teacher's Association and three executives from a national food-service company. All had been actively involved with implementation at the provincial and district level.

At the district and school level, where it was possible to have multiple units of analysis, the selection procedure was as follows. The criterion for selecting districts was that the district had actively tried to implement the policy thus introducing a sampling bias at the district level. The rationale was that since the research focussed on following the process of implementation, it was important to choose districts that had undertaken the process to at least

Figure 4.2 Sampling in the New Brunswick Case

Level	Sample
Department	<ul style="list-style-type: none"> all 5 persons involved in policy development and implementation New Brunswick Teachers' Association president 3 food-service executives from a national food-service company
District	<ul style="list-style-type: none"> 2 of 12 Anglophone districts (D & F) selected to provide an intensity sample <p>Criteria for selection: District had implemented or was implementing the policy</p>
School	<ul style="list-style-type: none"> 6 schools selected from Districts D & F as a representative sample: <ul style="list-style-type: none"> District D: 2 selected from 30 schools District F: 4 selected from 45 schools <p>Criteria for selection: School had at least one food service, variation in number of grades, student population, and proximity to food outlets</p> Elementary school principals from District F: 19 of 33 schools selected as representative sample
Within Selected Schools	<ul style="list-style-type: none"> principals in each of 6 selected schools at least 1 teacher per school <p>Criteria for selection: classroom teacher or specialist teacher with nutrition or health responsibilities</p> <ul style="list-style-type: none"> 2 students per school in District F. <p>Criteria for selection: senior students, active in student affairs, or involved with school foods</p> <ul style="list-style-type: none"> 1 parent per school <p>Criteria for selection: active in school</p> <ul style="list-style-type: none"> food-service managers in each school at least 1 or more classes of students per school in health, economics or physical education

some degree. There are twelve Anglophone districts in the province. In order to determine which might meet the criterion, all were contacted in the winter of 1997, at the outset of the study, and were asked to provide information about the current status of the policy. The Department of Education facilitated the initial contact by providing names of district nutrition representatives. The main contact with the representatives was through e-mail. The representatives

were informed of the study and asked to give feedback, and were also asked for information about nutrition-related activities in their district. In addition, screening interviews were conducted with six of the twelve district nutrition representatives who were available for an interview.

The selection of districts also involved visits to four districts that were potential samples. A visit to District A showed that the policy was no longer on the district agenda and had not been for some time. Visits to the food services offered by two schools in District A reinforced this opinion. District B was visited to see if the research could be tied to a nutrition program that had begun in the community under the sponsorship of the Canadian Living Foundation, a national group that promotes healthy eating among school-age children. A visit to the district office and two schools revealed that relatively little implementation had occurred and that the policy had received almost no district support in the past. While in the area, a visit was made to the adjoining Francophone district (District C) to a school identified by the Department as an exemplary school. The school was of interest because it provided an opportunity to learn more about the change process. At this school, the principal and food-service manager participated in interviews (in French), and food services and menus were observed.

A visit to District D was more promising. This district's response to the policy was to form a nutrition committee and use a comprehensive approach to try to implement it. The committee hired a consultant, held meetings and conducted surveys with parents and students, and established a partnership with a food-service company that they felt was successful. For these reasons, District D was included in the case. This district was next to another Francophone district (District E) where one school was visited because it had been mentioned as an extreme example by the District D representative. At this school, an interview was conducted with the principal and the food services were observed.

A visit to a fourth Anglophone district (District F) indicated that it had been minimally successful in its first attempt to implement the policy, but that

it had just begun to renew implementation efforts due to the arrival of a new senior administrator who had overseen policy implementation in another district. The opportunity to observe the implementation process as it unfolded was unexpected but welcome, so District F was also selected.

Using Patton's terminology, the two districts formed an intensity sample. District D was a more "intense" sample than District F, but District F offered significant potential to collect contemporary data on the process of implementation. In District F, the potential for data collection was enhanced when I was asked to become a member of the district nutrition committee that was in the process of being formed. I became a participant-observer on the committee, adopting the role of a major participant. As part of my responsibilities, I obtained data about school food services from 19 elementary schools in District F and interviewed 18 of the principals in 1998 about their actions surrounding the policy objectives. These data were included in the study.

Following the selection of districts, schools were selected. The goal was to select a sample of stakeholder groups in each school: principal, teachers, parents, and food-service personnel; and in District F, students. Community stakeholders were found to have had little involvement and therefore were excluded. Six schools were chosen, two schools in District D to provide historical data on the implementation process and to assess the outcome of implementation, and four from District F to maximise understanding of the implementation process as it unfolded.

The individual schools were chosen in consultation with the district D and F nutrition representatives on the basis of criteria sampling with some bias toward schools that had made changes. For example, when I learned about one school that had made changes, I asked the district nutrition representative to approach the principal about participating. It was important that such schools be included in order to learn about how change had occurred. Schools that had not changed could provide limited data in this regard.

Two sampling criteria were used: (a) diversity and (b) the types of food services offered. Details of the schools selected are provided in Table 4.1

With regard to diversity, the sample was selected to include all grade levels, varied student size, and varied proximity to other food outlets. With regard to food services, schools had to offer at least one food service to students: cafeteria meals for breakfast or lunch, canteens, or vending machines. The district nutrition representatives arranged for initial researcher access to the schools.

Table 4.1 Sampling Criteria for Schools

	Food service	Grades and Ages	# of Students	Proximity to Food Outlets
D1	<ul style="list-style-type: none">• cafeteria• vending machine	Grades 5-8 Ages 10-13	742	<ul style="list-style-type: none">• Medium proximity• Students must stay on school property
D2	<ul style="list-style-type: none">• cafeteria• vending machine	Grades 9-12 Ages 14-18	1,294	<ul style="list-style-type: none">• Close proximity• Surrounded by fast food outlets
F1	<ul style="list-style-type: none">• cafeteria	Grades K-8 Ages 5-13	750	<ul style="list-style-type: none">• Remote proximity• Students stay on school property
F2	<ul style="list-style-type: none">• hot lunch• vending machine• canteen	Grades K-5 Ages 5-10	179	<ul style="list-style-type: none">• Close proximity• Students must stay on school property
F3	<ul style="list-style-type: none">• cafeteria with breakfast & lunch• vending machine	Grades 5-8 Ages 10-13	261	<ul style="list-style-type: none">• Medium proximity• Students need note to leave school property
F4	<ul style="list-style-type: none">• cafeteria• canteen	Grades 9-12 Ages 14-18	1,251	<ul style="list-style-type: none">• Medium proximity

With four to five stakeholder groups per school and six schools, this meant that information from at least 25-30 people would be collected. As data collection progressed, a key factor in deciding whether other schools should be added was whether new information was being provided. Some redundancy of information was encountered and I concluded the sample of six schools was sufficient.

Criteria sampling was used to select stakeholders within schools. The selection of individuals at this level introduced a bias toward those with some knowledge or opinions related to the objectives of the policy. Principals assisted with in-school sampling of teachers, parents, and students, except in schools where teachers were already known to the researcher. Participation was sought from teachers with Home-Economics, Physical Education, or health-related responsibilities, and from parents and students who were either active in the school or who had food-related responsibilities. The principal also notified food-service personnel of impending visits by the researcher. The researcher approached the food-service managers to participate in the study, and sought permission from their employers.

The case also included a participant-observation activity in each school. The researcher led a class in which students were asked to role-play as nutrition experts. One class per school (grade 4 and higher) was selected with the help of the principal from among available health, home economics, or physical education classes.

4.5.3 Characteristics of the researcher

Yin (1989) discusses the personal qualities that facilitate qualitative case study research. Patton (1990) notes that disclosure of the researcher's qualitative experience and perspective are important elements in establishing trust. My personal qualities and experience can be described as follows.

I am strongly committed to this area of research. My topic knowledge comes from my undergraduate (B.Sc.) and graduate (M.Sc.) course work in nutrition; my experience working in a Faculty of Education teaching nutrition

and health promotion; and the experiences, readings, and discussions accruing from my Ph.D. studies.

My commitment has pushed me to undertake high quality research to ensure the results are useful to me and others. Although my prior experience with qualitative research was limited to two small projects, I now have read extensively in the area and have taken two university courses during my Ph.D. studies at my home university (one on qualitative research methods and a second on research design). During this time I have seen myself become more aware of the rich possibilities offered by naturalistic studies. I do not consider myself an anti-positivist, probably because of my prior scientific training. I believe that both the naturalistic and positivist approaches have merit, depending on the nature of the research. I believe that naturalistic research should be defined on its own terms as much as possible, not in relation to positivism. I am not averse to combining qualitative and quantitative methods at times.

During this research and in my earlier qualitative experiences, I recognised that a number of my personal skills suit qualitative methods. I consider myself to be relatively adaptable and flexible regarding changing situations because they offer new opportunities for learning. I am curious by nature and interested in people, so enjoy conducting interviews. I enjoy the mental challenge of simultaneously listening to what people are saying, mentally analysing it as they speak, and thinking about what question is most useful to ask next.

The skills required by qualitative methods that I found least suited to my personality were the self-discipline required to write-up field notes in a timely fashion after a day spent in concentrated data collection, the organisational skills needed to keep track of all data in an easily retrievable form. In future, I plan to use the computer more to improve in these areas.

4.5.4 New Brunswick data collection methods and analysis

A variety of methods were used to collect the data for the study. They included conducting semi-structured interviews and informal conversations with 66 stakeholders at the departmental, district, and school level (see Table 4.2 for details); reviewing documentation and archival information; observing student food-related actions in six schools in Districts D and F; organising the six participant-observation activities in District D and F schools; and acting as a participant-observer on the District F nutrition committee.

Table 4.2 The 66 Research Participants

Number	Description
5	Departmental representatives
3	Provincial/district food-service representatives
2	District nutrition representatives
33	School-based stakeholders: principals, teachers, students, parents, food-service staff
18	Principals or school nutrition representatives interviewed for the District F Nutrition Committee
5	Others <ul style="list-style-type: none">• NBTA President• former District public health nutritionist• retired District F nutrition representative• District F nutrition committee member• District A nutrition representative

Data related to all three research objectives were collected during the interviews (see Appendix B). As was indicated in Figure 4.1, each research objective informed the next, resulting in an overlap between the objectives and the data. The types of historical and contemporary evidence used to research objective one, the process of policy development and implementation, were:

- A review of documents from the departments of Education and Health and Community Services and from school districts, including:
 - publications associated with the policy,

- correspondence between the districts, the Department of Education, and other stakeholders,
 - minutes of meetings, and
 - a report evaluating the access to food objective of the policy (NB Department of Education, 1995).
- A review of documentation from the transcripts of the provincial legislative assembly and from newspapers regarding the development of the policy, reaction to it, and activities associated with implementation. An attempt was made to obtain radio transcripts but they were no longer available.
- A review of archival information consisting of a Department of Education survey of school districts prepared prior to policy development (McKenna-Breau, 1991), and a survey conducted by the Department of Health and Community Services (1990) on the nutritional quality of foods in schools.
- In-depth observations of activities related to the policy objectives in six schools in Districts D and F. These objectives related to: quality of foods, nutrition education, and access to food by students. A total of two or more observations were completed in each school over a period of two years. The quality of foods was assessed by observing what foods were available in schools either by checking menus or recording actual food available and also by recording the purchases of all customers during breakfast or lunch. The links between classroom and food-service nutrition education was assessed by observing the educational and promotional materials at food sites (e.g., posters or brochures). The access to food by students was observed by visiting supplemental food programs.
- Interviews conducted at the provincial and district level included five departmental staff, two district nutrition representatives, the president of the New Brunswick Teachers Association, three representatives from food-service companies, a former public health nutritionist, the former

district nutrition representative from District F, a district nutrition committee member from District F, and the District nutrition representative from District A. These interviews were critical to gaining an understanding of the process from the departmental and district perspective and from a broader provincial perspective. In general, participants were asked about their involvement with the policy.

- Interviews conducted at the school level included 33 school-based stakeholders to ask about their activities including:
 - 7 principals or acting principals
 - 10 teachers
 - 8 students
 - 5 parents
 - 3 food-service employees

The interviews covered their involvement with the policy, including opinions about the nutritional quality of foods, nutrition education, and access; a review of actions taken by the district or school; the current status of the nutrition policy; and their views and comments about nutrition in school. Because the research was undertaken with the knowledge that reaction to the policy had been negative in many cases, the interviews addressed the policy objectives but with minimal reference to the policy per se.

Interviews with each stakeholder group were designed to learn more about their involvement with the policy and their views on the implementation process. Interview protocols varied by group since their relationship to the policy was different (see Appendix B for samples). All interviews were audio-taped and transcribed in full, except those with food-service managers whose responses were captured in writing or in instances in which permission was not given to tape the interview.

Interviews with all participants at the provincial, district and school levels were conducted in-person with the exception of two, one by e-mail and one by telephone. Prior to each interview, the nature of the study was explained to all participants, and they signed a consent form (see Appendix B).

- Participant-observation data were collected in a total of 11 selected classes, at least one in each of the six schools. For the majority of the class time, students worked in small groups, role playing nutrition experts who had been invited to the school to help school personnel promote healthy eating. Each small group was given questions to answer (see Appendix C). Each group reported to the whole class at the end while the researcher summarised their responses on flip-charts. At the end of the class, students were asked to resume their normal roles and complete a short written survey (see Appendix C for sample) on their use of the school's food services and their preferred food items, and to add any comments they might have. The survey questions used at each school varied slightly to account for differences in the school's food services. In two of these schools, the small group activity was audio-taped and transcribed.
- Participant-observation data were gathered during the time I sat as a member of the District F nutrition committee from the fall of 1997 onward. This provided an opportunity to gain first-hand experience about the process of implementation. This was not a part of the initial research design but when the committee was formed, I was asked to be a member and accepted. The committee was chaired by the District F nutrition representative; and included, one parent, two principals, one vice-principal (who taught Home Economics and was a member of the original district nutrition committee that was formed shortly after the policy was announced), two representatives from the district's food-service company, and three high school students. My committee responsibilities consisted of attending meetings, taking the minutes of

meetings, and actively working with the chair of the committee. An alternative would have been to sit as an observer; however, it seemed more worthwhile to work with the committee to try to develop a new approach to implementation rather than repeating one that was generally unsuccessful.

In the fall of 1998, the District F Nutrition Committee decided to assess current practices in elementary schools. The committee developed a structured interview protocol (see Appendix D) and the District F nutrition representative selected a representative sample of schools based on location and organised the itinerary. A total of 19 schools were selected out of a total of 33 and represented three regions of the District. I conducted 18 interviews with either a principal or school representative — one school was unable to arrange an interview; tabulated and analysed the results; wrote a report that was distributed to the nutrition committee members and all elementary principals; and along with the District F nutrition representative, presented the results at a meeting of elementary principals.

The type of evidence used to address the second research objective, factors that influenced implementation, came from an analysis of the same data used for the first objective. As well, additional interview data about the policy process was analysed from participants who were familiar with the policy. The analysis of the data was largely informed by McLaughlin's (1987) concepts of capacity and will. Her work had emerged as a useful conceptual framework during the early stages of data collection. Using her framework, however, did not preclude the possibility of applying other analytical concepts. The types of evidence used to meet the third research objective, recommendations for future implementation, were derived from the results of the analysis of the first two objectives.

An informal analysis of the data was ongoing throughout the data collection process and the preliminary formal analysis began before all the data were collected. The main analysis, at this time, was based on observations and

events that resulted from visits to schools and interviews with school-based participants. Early in the process, some initial attempts to synthesise the data occurred. These were recorded in research notebooks. Some of this work was completed to prepare research papers presented at two professional conferences (McKenna, 1997a, 1997b), to prepare an interim report for the Department of Education (McKenna, 1997c), and to write the report on the interviews with District F elementary principals (McKenna, 1998).

The preliminary analyses completed during data collection proved helpful when full-scale analysis began after the majority of the data was collected. The first step at this point was to review all the data in relation to the three research objectives: the process of policy development and implementation, factors influencing implementation, and recommendations for the future.

The second step was to write a detailed description of the process of policy development and implementation. To address this objective, all documentation, archival information, and interview transcripts (except the data pertaining to the six schools) were read and re-read to determine what happened during the policy process. These data, as with all the data used in the study, were coded by hand to help me stay as close as possible to the data. The data were coded for the policy events and for participants' reflections and views. These were cross-referenced when appropriate. The third step involved assembling the data into chronological order and writing a descriptive draft of the policy process.

The fourth step was to add the analytical perspective based on the conceptual framework and to identify the factors that influenced implementation. The review of the data indicated that four factors influenced policy implementation: the nature of the policy, the organisational milieu, the approach to policy development, and the approach to implementation. The concepts used to describe three of these — the nature of the policy, the organisational milieu, and the approach to implementation — had been raised as possible factors by McLaughlin (1987); those used to describe the approach

to policy development arose from other literature (e.g., Jenkins, 1978). For each factor, the data are first described, then analysed and discussed in chapters 5 through 8. The analysis in each chapter moves inductively from concrete descriptions to generalized interpretations. A draft of these chapters was given to a retired departmental employee for feedback.

McLaughlin stresses the important information that can be gained from studying variability at the local level, so the fifth step in the analysis was to compile the information from the two districts and six schools into “nutrition policy profiles.” The profiles are based on the data from the observations, documents, and interviews with school principals, teachers, students, parents, food-service managers, and district nutrition representatives or committee members. The quantitative data that were part of the profiles were analysed using frequency counts and by calculating percentages. The profiles detail the policy process at both the district and school levels and analyse the events in terms of the effect on implementation of the nature of the policy, the organisational milieu, and the approach to implementation. A draft profile for the district and schools was given to the district nutrition representative for feedback. The completed profiles are found in Chapters 9 and 10.

The last step of the analysis was to formulate the recommendations for the future. The recommendations were based on the factors that influenced implementation and the local experiences of districts and schools, as well as recommendations made by participants during interviews and information derived from the literature review and the conceptual framework. These data were coded, compiled, and framed in terms of recommendations regarding each of the four factors that influenced implementation. Hord’s (1995) suggested approach to implementation, described in Chapter 2 as part of the conceptual framework, was used to assist with formulating the recommendations.

4.5.5 Establishment of trust in the New Brunswick case

The four elements of trust are credibility, transferability, dependability, and confirmability. Different steps were taken to establish each in this study.

Credibility: A major purpose of the current chapter was to increase the credibility of the research by clearly stating the parameters of the case and explicitly describing the data collection methods. Another means of establishing credibility was to use verbatim quotes from the original data so that participants' voices would be clearly evident.

Transferability: This research was undertaken with the hope that it primarily would be used as a basis for promoting healthy eating in New Brunswick schools; and secondarily, that it might also be relevant to educators and health-promoters in other jurisdictions who wish to implement health-promoting policies in schools. While generalising to other settings on the basis of a single case study is inappropriate, the use of a clear conceptual framework may help others see how they could use the results.

Triangulation enhances transferability. In this case, there was a triangulation of methods as both qualitative and quantitative methods were used and a number of different types of evidence were collected (see Table 4.3). Triangulation of analysts was achieved through having selected participants review draft portions of the thesis.

Dependability: Changes that occurred in the case design are accounted for in the current chapter, as, for example, in the explanation of the sampling process used to select districts. The goal was to present the methods clearly and to explain the logic behind the various decisions fully.

Confirmability: Steps taken to enhance the confirmability of this research included:

- frequent discussions with thesis advisors, colleagues, and participants about the results and their meaning;
- attention to differing interpretations or recollections of events and an attempt to either resolve the differences or an inclusion of the differences;

- frequent checks and re-checks of data;
- attention during interviews to try to avoid letting research assumptions lead to incomplete data;
- an attempt to be open to other conceptual interpretations of the data, to not force the data into the capacity and will framework; and
- the practice of keeping a research record and of retaining all data, with identifying information.

Table 4.3. Triangulation of Methods in the Case Study

	Provincial	District	School
Documents	<ul style="list-style-type: none"> • publications • minutes • correspondence • newspaper articles • evaluations 	<ul style="list-style-type: none"> • publications • minutes • correspondence 	<ul style="list-style-type: none"> • menu information
Archival records		<ul style="list-style-type: none"> • survey of district nutrition activities 	<ul style="list-style-type: none"> • survey of foods available in schools
Interviews	<ul style="list-style-type: none"> • nutrition committee • supervisors • NBTA • food-service personnel 	<ul style="list-style-type: none"> • nutrition representatives • district nutritionist 	<ul style="list-style-type: none"> • principal • teachers • students • parents • food-service personnel
Direct Observation			<ul style="list-style-type: none"> • foods available & purchased • nutrition education links with food services • access to food programs
Participant-Observation		<ul style="list-style-type: none"> • District F committee member 	<ul style="list-style-type: none"> • student role-play in classrooms

4.6 Designing Research to Support Participant Well-being

The introduction to this chapter mentioned that a secondary objective of the research was that it be collaborative and participative in nature so that the process reflected the overall goal of promoting well-being. This was considered especially important given the negative reaction to the first attempt at policy implementation, which led people to feel the policy had been imposed on them.

The research method that most explicitly addresses collaboration and participation was action research. Action research, like case study research, is categorised as practical research that aims to achieve change either in the researcher or in the organisation by closing the gap between theory and practice (Kuhne & Quigley, 1997). Action research can be “understood as an approach to problem posing and problem solving that proceeds through four distinct processes: planning, acting, observing, and reflecting” (Kuhne & Quigley, 1997, p.24). In action research, participants are actively involved during all stages of the research process (Allison, *et al*, 1988).

One difficulty in using action research in the New Brunswick case was that the purpose of the research was more to understand the problem than to solve it, although the latter is a long term objective. A second factor was that because of my relative inexperience, I felt the need to retain most of the control over the research rather than sharing it with participants. For these reasons the research was not framed as action research. Nevertheless, collaborative and participative elements were integral to the research design. First, a broad cross-section of people were interviewed during the research. They were not only asked to provide factual information, but also to report their opinions of events related to the policy, their recommendations for the future, and their feedback on ideas and proposals that evolved from the research. These types of questions recognised the worth of participants’ knowledge and experience.

Second, the participant-observation activity conducted with students in which they role-played nutrition experts gave them a chance to express their opinions. The students were credited with having sufficient nutritional

knowledge and experience with school eating that they could comment on their school food services and nutrition programs. These activities are typical of an action research approach.

My participant-observation experience as a District F Nutrition Committee member was also very helpful in adding a collaborative dimension to the research as it offered a forum for the exchange of information and ideas. It involved a cross-section of stakeholders working together to decide how to implement the policy in the district. I participated as one of the more active members of the group; I listened, contributed, and received feedback from others.

Finally, respect for the knowledge and experience of participants was demonstrated by showing three participants — one retired departmental employee and two district nutrition representatives — draft sections of the thesis to obtain their comments. Their feedback was incorporated in the final draft where appropriate.

Although considerations of participant well-being were a deliberate part of the research, its potential effect was not measured. It was also hoped that the experience of participating in the research might contribute to a more positive attitude toward the promotion of healthy eating in schools, and even a rekindling of interest in the policy, but this was not measured directly.

4.7 Summary

This chapter explained the general methodology and specific methods used in the research. It reviewed how the decisions were made that a naturalistic approach was more appropriate than a positivist approach, that the majority of data collected would be qualitative, and that a case study approach was the most suitable overall methodology. It then described the components of the case study, including definition of the case, propositions, units of analysis, qualities of the researcher, methods for collecting and analysing data, and methods for establishing trust. Each of these, in turn, were used to describe the components of the New Brunswick case.

This chapter represents a turning point in this document. Until now, it has provided introductory and background information by introducing the research questions, explaining the conceptual framework that guided the research design, reviewing the literature on nutrition policies in schools, and describing the research methodology and methods. The chapters that follow report the results. Chapters 5 through 10 consist of a description and analysis of the policy implementation process. Chapter 11 discusses the overall research findings and presents recommendations for the future.

Chapter 5

The Effect of the Nature of the Policy

5.1 Introduction to the Results and Analysis

The implementation of the Food and Nutrition Policy for New Brunswick Schools was inconsistent and generally unsuccessful, except for helping to increase student access to food. This chapter begins a series of four that examine factors that influenced this outcome. As discussed in Chapter 2, McLaughlin (1987) recommends that, as part of examining the capacity and will of stakeholders to change, analysts should also study: the nature of the policy, the organisational milieu, the implementation strategy, and local variability. In addition, other researchers (e.g., Jenkins, 1978) have noted how the various stages of the policy process are inter-related, indicating that the policy development phase also warranted study. Therefore, the remainder of this chapter, and the following three, analyse the effects on capacity and will on: (a) the nature of the policy, (b) the organisational milieu, (c) the approach to policy development, and (d) the approach to implementation. Local variability — in schools and school districts — was influential in how the policy implementation process played itself out at the micro-level of the system and is examined in chapters 9 and 10.

All the chapters combine a description of the data pertaining to the case with an analysis and discussion of the results. Each of chapters 5 through 8 examines the extent to which the four factors influenced capacity and will. Although each factor is dealt with separately, it is important to recognise that they are inter-related. The nature of the policy was influenced by the way it was developed, perceptions about the nature of the policy influenced the approach to implementation and vice versa, and all policy decisions occurred within a particular organisational milieu. The inter-related nature of the factors becomes clearer in the micro-level analysis in Chapters 9 and 10. The results from Chapters 5 through 10 are then used to construct Chapter 11 which outlines recommendations for the future. Before embarking on a discussion

about the nature of the policy, a brief chronology of the overall policy process is provided as a point of reference.

5.2 Overview of the Policy Process

The Food and Nutrition Policy for New Brunswick Schools was adopted by the Department of Education in 1991, under the governing Liberal party, which held every seat in the legislature. At the time, the political milieu of the Department of Education, under the Minister of Education, Ms. Shirley Dysart, was very active. For example, the Department had successfully enacted major policies that resulted in the reform of high schools, the establishment of public kindergartens, and the revision of the French Second Language program. The Department was also undergoing major re-organisation through amalgamating school districts and changing the management structure within districts. Compared with these changes, the Food and Nutrition Policy for New Brunswick Schools was regarded as a minor initiative within the Department.

The development of the policy began in 1990, mainly in response to departmental employees who were concerned about the nutritional quality of foods in schools, and to one politician from an opposition party who was concerned about hungry children. The Department formed a nutrition committee composed of the two Home Economics consultants from the Department and the Senior Nutrition Consultant from the Department of Health and Community Services. The committee used a top-down managerial approach to policy development. To formulate the policy, they surveyed New Brunswick school districts and checked with other jurisdictions to learn about their actions related to school nutrition. Stakeholders such as school administrators, teachers, students, food-service companies, and parents had minimal involvement in formulating the policy.

The goal of the policy was to encourage students to develop healthy eating habits. The three objectives centred on: (1) nutritious food choices, (2) nutrition education, and (3) access to food. The first objective of the policy also stipulated that certain foods, such as soft drinks, potato chips, and deep

fried foods should no longer be made available in New Brunswick schools. The committee used *Canada's Guidelines for Healthy Eating* as the nutritional basis for the policy (Health and Welfare, 1990b). These guidelines, published by the federal government, were intended to provide a basis for Canadian nutrition policies.

The policy was adopted in the New Brunswick legislature in April 1991. Soon after, the members of the departmental committee began the process of implementation by travelling around the province to explain the policy. The Department of Education received assistance with implementation from the Department of Health and Community Services, which employed regional public health nutritionists, and from other provincial departments. Each school district was asked to identify a staff person to be a district nutrition representative, who was to establish a district nutrition committee and oversee policy implementation in schools.

Shortly after the implementation process began, it became clear that many stakeholders opposed the policy, a reaction the departmental committee had not anticipated. Stakeholders were most concerned about the first policy objective which addressed the nutritional quality of foods and stipulated that certain foods were not to be made available to students. Concerns centred on the negative implications of this clause for school-based fund-raising and its effect on limiting student choice. As well, some stakeholders felt the Department should concern itself more with educational matters than with nutrition.

The opposition was sufficiently strong that after approximately one year the Department switched its emphasis from the first policy objective to the third, access to food for students. Beginning in 1992, the Department tried to re-define the policy around this objective. The government allotted over one million dollars to support an Excellence in Nutrition Program that allowed schools to buy equipment to establish or expand breakfast, lunch, or snack programs, and established a milk program that aimed to make low-cost milk available to all students.

From late 1992 onward, implementation activities by the Department and actions by schools to implement the policy gradually diminished. Still, the departmental committee tried to encourage implementation in a number of ways. It published a planning guide on implementation (NB Department of Education, no date), conducted surveys of schools to determine what had been done, and held provincial meetings with the district nutrition representatives (NB Department of Education, 1993, 1994). These actions had little impact. Between 1994 and 1996, all three members of the departmental nutrition committee retired so the committee disbanded, as did, it appears, any district nutrition committees that had been formed. The only aspects of the policy that were evaluated were the Excellence in Nutrition program and the milk program. Departmental monitoring of these programs occurred between 1993 and 1995 and the results indicated a substantial increase in breakfast and lunch programs and the establishment of milk programs in most provincially-funded schools (NB Department of Education, 1995). Regarding the other two policy objectives, implementation was widely regarded as inconsistent. In general, the policy came to be seen as a “good-will” policy whose implementation was optional.

The remainder of this chapter and the next three examine the factors that influenced the process: Chapter 5 addresses the nature of the policy; Chapter 6, the organisational milieu; Chapter 7, the approach to policy development; and Chapter 8, the approach to implementation. Chapters 9 and 10 report on local variability as experienced by six schools in two districts.

5.3 The Nature of the Policy

The Food and Nutrition Policy for New Brunswick Schools (see Appendix A) contains three objectives. Schools are to:

1. organise school food services to ensure the food is of high nutritional quality,
2. incorporate nutrition education into the school environment, and
3. ensure access to food by all students.

An additional stipulation attached to the first objective states:

Food Services should not provide students with items such as fruit drinks, soft drinks, candy, chips, chocolate bars, deep fried foods, doughnuts and other foods high in fat, sugar and/or salt (NB Department of Education, 1991, p.4).

Chapter 2 mentioned that analysts should know the nature of the policy because of problems that may be associated with it (McLaughlin, 1987). This policy as it was written had definite implications for implementation for three reasons. First, many stakeholders were concerned that enacting the clause about restricting foods would result in decreased profits from the sale of food. Second, for many stakeholders the policy raised the philosophical question of how much power the Department should have in compromising the rights of students to choose their own foods. Third, many were convinced that the priorities of the Department of Education were misplaced and that nutrition should not be a high priority. None of these three concerns — food sales, choice, or the priority of nutrition — were addressed directly by the policy, but became part of how it was interpreted by stakeholders. The problems associated with the policy caused conflict between stakeholders and the Department, and this situation led to confusion about how the policy should be interpreted. In the end, the nature of the policy had a negative effect on both the capacity and will of stakeholders to change.

5.3.1 Stakeholder concerns about restrictions on the sale of food

The implications of the policy on food sales were of concern to a broad cross-section of stakeholders including: school administrators, teachers, parents, students, food-service companies, and food manufacturers. Only a small minority of stakeholders felt that fund-raising was not a serious obstacle to implementation. In a time of decreased funding to schools, the issue of fund-raising became a major issue.

There are a number of ways that schools and other stakeholders generate revenue from the sale of food. Frequently, schools sell food on school property (e.g., in a canteen or vending machine) or they organise lunch

programs that make a small profit for the school. As well, schools sometimes sell foods in the community for a specified period of time (e.g., chocolate bar campaign). Sometimes food companies sponsor school athletics teams or other programs or give money to schools in return for providing the company with an outlet for selling their food (e.g., contracts between schools and beverage companies). As well, school districts often receive a commission from district caterers as part of their contractual agreement. The more money the company makes, the larger the fee. Implementing the policy “. . . is going to cost [districts] money . . . a good example would be Quebec . . . where it was so extreme . . . where no commission is paid to the schools on anything” (Food-service executive, JP, 1997, p.4).

School groups, such as student councils, parent associations, teacher groups or school administrators, use the revenue from food sales to support a wide variety of school activities and programs, including athletics, music programs, school trips, and the purchase of equipment and supplies. Other stakeholders, such as food-service companies and food manufacturers, use food sales in schools to generate revenue for their businesses.

Stakeholders who opposed changes to food sales were quick to question the removal of certain profitable foods as stipulated by the policy because they feared the change would cause a significant decrease in school revenues. Just one week after the policy was announced, the fund-raising issue was raised in the provincial legislature. During question period, Allison DeLong, a liberal party backbencher, asked Shirley Dysart, the Minister of Education, if consideration had been given to student councils who depended on soft drink and chocolate bar sales for funds (Hansard, 1991b). Dysart replied that others around the province had also raised the issue. She suggested that milk or juice could be sold instead but admitted that the impact of the policy would need to be assessed. She concluded her remarks by stressing the health benefits: “I feel it will have a great impact on the health of our children, and that is what we are most interested in; but we will look at the other impacts as well” (Hansard, 1991b, p.1180).

Three weeks later, principals and vice-principals from the province's high schools met and "agreed unanimously to oppose the policy, calling it well-intentioned but unrealistic" and "impractical" (Fredericton *Daily Gleaner*, 1991, p.18). They were concerned that the implementation of the policy would cause soft drink companies to withdraw their support for school activities.

District and school representatives at a school district meeting in 1992 also raised concerns about the policy (District 19, 1992). Although they stated their support for healthy lifestyles, they felt there should be no changes to school foods. Two of their major concerns were the policy's negative impact on fund-raising and on the financial viability of food services in schools. They did not want students to begin leaving school grounds in search of foods that were no longer available and they were also concerned that the policy would not be supported by parents who often send "junk foods rather than nutritious snacks [for their children]" (District 19, 1992, p.3). Fund-raising is still an issue for schools when nutrition is discussed. In 1998, during the interviews with school principals in District F, one principal said he regarded the policy "as an infringement on my ability to fund-raise (Field note, October 15, 1998)."

Among the six schools profiled in this study, a number of food-related activities were used to raise funds, as indicated in Table 5.1. Profits were used in a variety of ways including: supporting student council activities and school or staff activities, subsidising the cafeteria, and supporting sports programs. For all but one school (F1), fund-raising was an issue in terms of changing school foods. Two schools (D2 and F3) were willing and able to compensate for the decreased revenues caused by changes, two others (D1 and F2) did not make any changes that affected fund-raising, and one school (F4) made no changes at all.

Table 5.1 Fund-raising in the Six Profiled Schools

	Profit-generating food Sales	Fund-raising significance	Changes to food availability in relation to fund-raising
D1	<ul style="list-style-type: none"> • beverage machine • chocolate bar campaign 	An issue	<ul style="list-style-type: none"> • Food availability changed only to the extent that it did not interfere with fund-raising
D2	<ul style="list-style-type: none"> • four vending machines 	An issue	<ul style="list-style-type: none"> • District compensated school for decreased revenue from the vending machine
F1	<ul style="list-style-type: none"> • none 	Not an issue	<ul style="list-style-type: none"> • Removed vending machines • Priority of nutrition outweighed concerns about profits
F2	<ul style="list-style-type: none"> • lunch program • canteen • vending machine • chocolate bar campaign 	Significant issue	<ul style="list-style-type: none"> • All fund-raising centred on food • Food availability changed only to the extent that it did not interfere with fund-raising.
F3	<ul style="list-style-type: none"> • lunch program • two vending machines • chocolate bar campaign 	An issue	<ul style="list-style-type: none"> • Cafeteria was intended to be self-supporting so changes were made to the extent that food sales were not severely affected
F4	<ul style="list-style-type: none"> • canteen 	Significant issue	<ul style="list-style-type: none"> • Heavy dependence on food sales to support school activities • No changes made to food availability

5.3.2 Stakeholders' philosophical concerns about student choice

A second concern raised by stakeholders about the nature of the policy was that it held the potential for having a negative impact on student choice. Like fund-raising, the conflict surrounding choice centred on the stipulation

about the removal of certain foods from schools: Should the choice of foods rest with the student or be shaped by the school? Supporters of the “student choice” view, which was widely held, felt that few, if any, foods should be removed, and that the role of the school was to educate students to make healthy choices. The less popular view was that the school had a responsibility to restrict the availability of certain foods in order to fulfil its role as an educational institution and to increase the appeal of the healthy foods that were available.

The “student choice” philosophy was broadly supported by a cross-section of stakeholders, including principals, student council groups, food-service companies, and food manufacturers. A principal explained their position as follows:

[Give] students a choice with nutritious things and then not so nutritious things, educate them and let them make the decisions. Now the younger the child, the more guidance they are going to need to make the correct choices, but certainly at the high school level they should make good choices (Principal, AC, 1999, p.22).

Another principal felt that by restricting food choices, schools were not preparing students for dealing with real situations. “I think that is a very narrow education” (Principal, KD, 1997, p.10).

Student groups, which often sold food for profit, also used the choice argument when voicing their opposition to the policy. At a leadership meeting of student council executives and their faculty advisors in the fall of 1991, the nutrition policy dominated the meeting. After a lengthy discussion, the group summarised their position and gave it to a departmental representative:

I think the bottom line was that everyone there was concerned about nutrition and good nutritional choices but I think they felt it had to be balanced with some decision where there would be choices made and that everything would not be pulled out (Teachers’ association executive, DG, 1997, p.2).

Food-service companies and food manufacturers were more likely to make the choice argument than the fund-raising argument even though their main reason for providing foods was to generate profit, not to educate children. One document they used to support their position was the new food guide,

Canada's Food Guide to Healthy Eating, published by Health and Welfare Canada in late 1992. Supporters of "student choice" argued that, because the new food guide stated that no foods were specifically bad or good and that people should concentrate on ensuring their *overall* diet was healthy, schools should not be singling out certain foods and making them unavailable to students. They argued that the policy did not reflect the "total diet" approach of the new guide². An executive for the food-service company that operated many school cafeterias in the province commented:

The [department] should be more consistent with the new Canada's Food Guide which stresses choice and variety versus [singling out foods as] 'that is a good food', 'that is a bad food'. Well, we are all going to have a bit of pizza, a bit of french fries, a bit of pop. How do we get kids to have a little bit of everything versus all of one thing? (Food-service representative, JP, 1997, p.26).

A district nutrition representative remembered receiving faxes from food companies, including Pepsi, Coca Cola and McCain's, "all saying that we're making a mistake and all this sort of thing. . . They were really quite upset with what we were doing. They think that we're denying kids choice. That was [their] bottom line" (District nutrition representative, KF, 1997, p.9). Food companies also lobbied at the federal level to have the policy changed. A member of the departmental nutrition committee reported:

I took a lot of flak from the Coca Cola company through the Grocery Products Manufacturers Association who lobbied in Ottawa with the Minister of Health wanting New Brunswick to get rid of the policy. There was pressure put on me at the National Nutrition Committee by the Federal Chairperson at the time who had to answer to her federal minister, but New Brunswick was supported by the nutritionists from the other provinces as having a good policy (Retired departmental employee, DR, 1998, p.1).

The food manufacturing company that took the most action as a result of the policy was McCain Foods Limited, one of the world's largest suppliers of french fries. The company was founded in New Brunswick, its owners

² The food guide in effect when the policy was formulated reflected a "foundation diet" approach to dietary planning. It focussed on the concept of adequacy, the amount of food people need to eat to ensure they receive enough nutrients (Health and Welfare Canada, 1992).

reside in the province, and it is a major provincial employer. The stipulation that there should be no deep fried foods in schools meant that McCain's would lose a significant outlet for its french fries in the province.

Soon after the policy was announced, a radio interview about the policy with a public health nutritionist prompted one of McCain's owners to phone in his response. According to the nutritionist, McCain's was "concerned with the idea that french fries were not acceptable in schools" (Former public health nutritionist, BG, 1999, p.2). The company also wrote a letter to the Premier and arranged a meeting with representatives of the Department of Education. They wanted to improve their understanding of the policy, present information to avoid having french fries "unduly penalised by being labelled 'bad' food," (McCain's, no date), and reach consensus on where french fries fit into school lunch menus. A Department of Education employee recalled the outcome of the meeting favourably. "McCain's came to meet with us and we talked to them about the policy and what it means and that we were looking at more balanced meals. They were quite open to that" (Retired departmental employee, TT, 1998, p.14). After the meeting, departmental staff offered to meet again with McCain's "regarding balanced meals and they never contacted us again on it" (Retired departmental employee, AL, 1999, written feedback on thesis draft).

McCain's also solicited a review of the policy from Dr. Donna Woolcott, a university professor and the chair of the federal committee that developed Canada's Guidelines for Healthy Eating in 1991. Woolcott's response was that the New Brunswick policy should emphasise food patterns and total diets, not specific foods, and that it was too restrictive to define nutritious foods as only those that fit into the four food groups. She expressed "some concerns that the authors of the policy may have misinterpreted Canada's Guidelines for Healthy Eating or have extended their interpretation beyond what is intended" (Woolcott, 1991).

Not only did this prominent dietitian disagree with aspects of the policy, the dietitian hired by District D as a consultant also did not support a

strict interpretation of the policy (District nutrition representative, KF, 1997, p.5). To have the policy questioned by dietetic professionals weakened the Department's position because it raised questions about the nutritional soundness of the policy.

A smaller number of stakeholders agreed with the policy and felt that it was appropriate for school environments to be organised to promote healthy choices for students by limiting the availability of unhealthy food. They thought it was important to have consistency between the classroom and the food services.

I think the food service in the school fits into the whole educational arena that we're in. First of all, we are an educational institution so we have to promote food from that aspect as well. We have to educate by the choices we present. If we're telling [students] one thing in class and then they go to the cafeteria and here they're presented with exactly what we said were on our "no-no" list, then somehow there isn't a link between the two. I guess we have to sort of practice what we preach (District nutrition committee member, MU, 1997, p.3).

Policy supporters were also concerned that when students had a wide choice of foods, they would not make healthy selections. A teacher from F1 commented: "Children, if they have the chance to have fries or a baked potato, they are going to go for the fries. They don't have the parental involvement" (Teacher, MC, 1997, p.2). A district nutrition representative from District D noted that results from a district survey indicated that students' food choices were already limited by their parents at home and that other choices were limited by schools: "How much choice do you give kids? They don't have free choice of the subjects they take, . . . or the clothes they wear, or what they can do at school, or where they can smoke in school" (District nutrition representative, KF, 1997, p.5). This district, after consulting with a dietitian, decided to allow students some choice regarding less healthy foods. Their rationale was:

The policy from the department was very firm. And it was written before the new Canada's Food Guide came out. [The New Brunswick] policy is 'thou shalt not', and we have met people since that time who will say . . . there are some foods that are better than others but there are no such things as bad foods. So that's the response we have tried to

take. There's nothing wrong with fries now and again . . . which did sort of abandon [the policy] in a way (District nutrition representative, KF, 1997, p.15).

Of the six schools profiled in this study, only one (F1) fully supported the belief that schools should have a role in guiding student choice. F1 was also a school for which fund-raising was not an issue. Table 5.2 indicates that four other schools (D1, D2, F3 and F4) supported the belief that students should have a choice, although D2 and F3 believed that the age of the student should be considered when deciding how much choice to give. The sixth school (F2) thought the parents made the choice, by sending or not sending the money the child would need to purchase food.

Table 5.2 Student Choice in the Six Profiled Schools

	Whose choice	Explanation
D1	Student	<ul style="list-style-type: none"> Students should have choice
D2	Student	<ul style="list-style-type: none"> All students should have some choice The number of choices should increase with age
F1	School	<ul style="list-style-type: none"> Schools have a role in guiding student choices
F2	Parent	<ul style="list-style-type: none"> Parents make the choice by either giving money to the student to buy food or by sending food with the student
F3	Student	<ul style="list-style-type: none"> Student choice should be graduated The older the student the greater the choice
F4	Student	<ul style="list-style-type: none"> Students should have choice Failure to give them choice inadequately prepares them for the future

5.3.3 Low priority of nutrition in schools

The policy's perceived interference with the sale of foods and limitation of students' choice of foods significantly influenced its implementation. A third important feature was that the policy was a low priority for most schools.

The policy objectives were to improve food services in schools; enhance nutrition education by linking it more closely with school food services — the Department had mandated that there were to be no changes to the existing curriculum documents; and increase student access to food. These objectives had few direct implications for classroom practice or the management of the educational environment, unlike other education policies implemented at the time. Because most stakeholders regarded the policy as tangential to the education of children, they never made it a priority, although there were some notable exceptions.

A significant number of educators for whom nutrition was a low priority were upset when the government allocated approximately one million dollars to support the “Excellence in Nutrition” program in 1992. The money permitted elementary schools to purchase equipment that would help them establish or expand breakfast, lunch or snack programs, and thereby increase students’ access to food. One district nutrition representative commented,

I can honestly say 50 percent of [the schools] were irate about it. I might as well be honest, because they thought it was a misuse of funds. They are crying for book resources. I mean, they really were looking at ‘why all this money?’ (District nutrition representative, DW, 1997, p.5).

The same year, the announcement of a provincial school milk program, which allowed all students to purchase milk at one-half to one-third the regular price, was also questioned. “How much government subsidy is involved and could funds not be spent more efficiently elsewhere?” was a comment from a District meeting (District 19, 1992, p.4). The program was considered to be “more political than anything else” (p.5) and concerns were expressed about how schools were to organise it.

Some stakeholders questioned whether the policy reflected an appropriate role for schools. At the District 19 meeting, the comment was made that schools should limit themselves to education issues, not food-related issues (District 19, 1992). A principal in another district commented that he could understand departmental interest in nutrition because of the “connection between a healthy body and a productive mind,” but added, “I have some

difficulties, of course, with trying to [use schools to] correct all societal [problems]" (Principal, PG, 1999, p.7).

For the six schools profiled in this study, nutrition was a high priority for three (D2, F1 and F3), a moderate priority for one (F2) and a low priority for two (D1 and F4) (see Table 5.3). Schools that made nutrition a priority either did so because they regarded it as part of their role or they agreed with the policy. The F1 principal commented: "You have to make sure that the environment you are in is the best environment that you can provide for the kids because that is what we are about. We are about kids" (Principal, WH, 1997, p.6). Later he added, "I am very supportive and have been supportive of good nutrition" (p.14). In the low priority schools, nutrition was regarded as a minor issue compared with other school or public concerns.

Table 5.3 Priority of Nutrition in the Six Profiled Schools

	Priority	Explanation
D1	Low	<ul style="list-style-type: none"> • Nutrition is just one more thing when the pressure is to increase math and literacy levels of students
D2	High	<ul style="list-style-type: none"> • The changes were considered important and the school wanted to be a trend-setter
F1	High	<ul style="list-style-type: none"> • The changes provided an excellent opportunity for children to learn what is appropriate
F2	Low-moderate	<ul style="list-style-type: none"> • Schools, as educational institutions, recognise the importance of healthy minds and bodies, but cannot be held responsible for all social ills
F3	High	<ul style="list-style-type: none"> • The school was told by the district to implement the policy, so it did; and decided to make significant changes to the foods offered
F4	Low	<ul style="list-style-type: none"> • Other changes at the time had a much higher priority • The principal disagreed with the nature of the policy

5.3.4 Departmental response to stakeholder concerns

The members of the departmental nutrition committee did not share the views of many stakeholders regarding the sale of foods, student choice, or the priority of nutrition. Regarding the sale of foods, the committee preferred not to address stakeholder concerns. “We tried to tell [schools] that [fund-raising] was a totally separate issue and we should deal with it at another time” (Retired departmental employee, AL, 1997, p.2). In this person’s opinion, the issues around fund-raising were never fully addressed. For example, no one questioned: “Were school food services established to make profits?” (Retired departmental employee, AL, 1999, written comments on draft thesis). She also felt that schools should have been required to account for their fund-raising, but that the departmental managers did not want to open up a debate on the issue.

The departmental position did not alleviate stakeholder concerns and one departmental employee cited it as a key factor in influencing implementation. When asked why the Department succeeded in implementing other policies but not this one, she responded, “No one was trying to sell kindergartens” (which were introduced around the same time) (Retired departmental employee, EO, 1997, p.14).

Regarding the choice argument, the Department’s position was as follows:

So we can say in one way we have to give children a choice and in the food and nutrition policy that was a big, big, big thing with some administrators coming back and saying, ‘we [the department] are not giving students a choice. This is not right. They have to choose and all this’. We were answering back, ‘they can choose between all these foods which are acceptable within the policy; but no they can’t choose between [others] because we have judged that at school, for example, the only beverages are to be milk and juice’ (Retired departmental employee, AL, 1997, p.9).

The members of the departmental committee had difficulty understanding why many stakeholders viewed the policy as a low priority. The members were strong supporters of the policy because of the potential health benefits to students.

In this case, I think we did it for the health of the youth of New Brunswick. And [a second reason], I would say, was for a cost factor [to cut health care costs] . . . Over thirty percent of people that died in New Brunswick were dying of cardiovascular illnesses (Retired departmental employee, AL, 1998, p.1).

Because the committee members were so convinced of the value of what they were doing they appeared to be unprepared for opposition to the policy and did not acknowledge the large gap between the policy objectives and the pre-policy practices of many schools. This led them to erroneously assume that districts and schools would be sufficiently motivated by the potential health benefits to make policy implementation a priority. It was only later that the committee members recognised they had made an error. “I don’t think we took the time to educate [the representatives from school districts. If we had], then people should feel it’s important, I would think. I would hope” (Retired departmental employee, AL, 1997, p.2). She also noted, however, that throughout the controversy, “data from stakeholders was never requested. We listened to opinions” (Retired departmental employee, AL, 1999, written feedback on draft thesis).

The end result of the controversy over fund-raising, student choice, and the priority of nutrition was that approximately one year after the policy was announced, the Department dropped its insistence that food items identified in the policy be removed from schools, yet did not change the wording of the policy. The new interpretation by the Department is illustrated by the recommendations given by a departmental employee at a district meeting:

- schools should limit the sale of french fries to once or twice per week or to sell them only as part of a complete meal;
- juice machines should be placed next to soft drink machines; and
- the school should strive for consistency in terms of the foods available in the cafeteria and through other avenues (District D, no date).

5.4 Discussion and Analysis: The Impact of the Nature of the Policy on Capacity and Will

The nature of the policy contributed negatively to both capacity and will on the part of many stakeholders. Most did not have the will to implement the policy because the loss of profit from food sales would reduce their capacity to offer valued school programs. The will to implement was also reduced by stakeholder perceptions about the policy's effect on student choices and about the relative priority which nutrition should take in an educational institution.

Opposition to the policy came from a large and politically powerful alliance composed of principals, district staff, student councils, food-service companies, and food manufacturing companies. Some dietitians also opposed the policy in terms of the "student choice" argument. A smaller group of stakeholders was more supportive of the policy. They were willing to seek alternative sources of revenue for school programs, were more likely to subscribe to the philosophy that schools should limit food choices, and felt that the health benefits of nutrition made it worthy of their attention. They were not as vocal in their support, however, as their counterparts were in their opposition.

To summarise the conflict regarding the nature of the policy: on one side was a broad group of stakeholders and on the other was the Department along with a much smaller group of stakeholders. The two groups disagreed on issues of fund-raising, student choice, and the priority of nutrition in schools. The larger group stated their support for the health of students, but not for the policy; while the smaller group supported the policy as an appropriate mechanism for addressing nutrition. Each group felt they could justify their position, but the positions were incompatible.

It is interesting to note which stakeholder groups used which argument to oppose the policy. Schools, which were likely to lose funding support for non-curricular programs, emphasised the use of food sales to raise money; whereas the food companies, which were going to lose business profits, focussed on the need for student choice. Even though the success of both

arguments would result in wider food choices for students, the food companies may have found it more politic to focus on student choice, rather than lost profits. Few stakeholders focussed primarily on whether nutrition should be a school priority. The major supporters for this argument were the individuals responsible for developing the policy.

Ultimately, the supporters of the policy failed to convince the larger opposition. The Department apparently did not realise the strength of the alliance that existed among the educators, food-service companies, and food manufacturers, a strength based at least partly on the fact that each was making money for the other. When the profits of one ally were threatened, all allies were threatened and they stuck together. The allied groups were able to successfully use the choice argument to achieve their ends. No one challenged this argument, perhaps because of fear of the potential political consequences. For example, the allied groups argued that there was no need to limit choice; that if students were adequately educated they would make healthy choices. The Department never turned the argument back to them by pointing out that if students could be relied on to pick mainly healthy foods, then stocking the unhealthy foods would become pointless. Some observers might respond that companies know that education alone is insufficient to cause this type of change and that there will continue to be a demand for less healthy foods. One food-service employee confided, on condition of anonymity, that the food company knows what foods students will pick when given a choice — they will choose the less healthy foods.

The disagreements between the majority of stakeholders and the Department about the policy's interpretation contributed to a chain of events that negatively affected both capacity and will to implement. These disagreements led to conflict which resulted in the Department dropping its insistence that certain food items be removed from schools, although the wording of the policy stayed the same. The fact that the Department shifted its position without any subsequent change to the policy resulted in an even more unclear policy. Stakeholders were unsure if they should implement the clause

about the removal of certain foods as written, or use it as a guideline for action, or whether they could invoke the “student choice” argument and ignore it altogether. The controversy over the removal of foods was so intense that for many stakeholders, it became synonymous with “the policy.” This meant that once the controversy ended and the opponents of the policy succeeded in changing the Department’s position, many stakeholders preferred to dismiss not only the single clause, but the policy as a whole. One departmental employee said she felt stakeholders chose to misinterpret the policy because they were angry “about the fact that we weren’t giving them any money [to replace money lost from reduced food sales]” (Retired departmental employee, TT, 1998, p.12).

The controversy surrounding the nature of the policy described in this chapter marked the most intense stage of policy implementation. After the controversy diminished, the government changed its implementation strategy by trying to focus attention on the access to food policy objective, with mixed success. Details of these efforts and the Department’s approach to implementation and its effects are provided in Chapter 8.

From a health promotion perspective, the policy was written to be comprehensive. It addressed healthy eating in schools not only in terms of traditional avenues of classroom education but also in terms of changing food-related environments and ensuring equitable access to food for all students. The stipulation about the removal of foods, however, proved so contentious that initial implementation centred on this clause. In this way, the policy became defined around a very divisive issue. As will be discussed in Chapter 8, eventually the controversy that was created was resolved, but not in a way that allowed the intended policy to be fully addressed by either the Department or the various stakeholders.

5.5 Summary

Many stakeholders regarded the Food and Nutrition Policy for New Brunswick Schools as impractical. They were concerned about the implications of the policy for the sale of food and for students' food choices, and they regarded nutrition as a low priority in school settings. These implications had a negative effect on implementation and led to conflict between many stakeholders and the Department. The conflict contributed to a lack of clarity about the stipulation regarding the removal of foods and about how the policy should be interpreted. The nature of the policy clearly affected both the capacity and will of schools to implement the policy. However, it was not the sole factor; the organisational milieu, to be discussed in the next chapter, also had a significant effect.

Chapter 6

The Effect of the Organisational Milieu

6.1 Introduction

Policies are developed and implemented within a social and political context, not in isolation. As discussed in the previous chapter, the Food and Nutrition Policy for New Brunswick Schools was a low priority for many stakeholders. The organisational milieu reflected this viewpoint in four key ways. First, school food services were regarded as primarily a service for students and were organised on that basis. Second, nutrition was a minor topic within classroom education and there were virtually no links between classroom education and school food services. Third, programs that increased student access to food were often organised on an ad hoc basis and were not seen as integral to the school. Fourth, because of its organisational structure, the Department of Education did little to acknowledge the uniqueness of the policy, did nothing to alter its traditional approach to implementation, allocated few resources to implementation, and allowed the policy to be side-tracked when major organisational changes were made.

In Chapter 2, the conceptual framework discussed how various stakeholders within the organisational milieu affect the implementation of policy. It identified the policy agency as playing a key role (Fullan, 1991). In this case, the effect of the organisational milieu reflected not only the actions of the policy agency and departmental personnel, but also the fundamental organisation of the educational system within the province of New Brunswick. The organisational structure reflected the low priority of nutrition which in turn corresponded with a relatively low departmental will to see the policy implemented, especially when implementation proved more challenging than anticipated. Not surprisingly, these conditions did little to foster stakeholder capacity and will to implement the policy. This chapter discusses the four ways in which the organisational milieu reflected the low priority of nutrition within the educational system and their subsequent influence on implementation.

6.2 School Food Services: Purpose and Organisation

Many educators believe that the main purpose of school food services is to offer a service by catering to perceived student tastes. They also serve staff, and indirectly, parents, who then do not have to prepare food to send with their children. Educators, for the most part, view food services as tangential to their professional roles and therefore have not explored the educational opportunities such services could provide.

The service orientation is widely held. For example, in 1998, in interviews with 18 District F principals, only five reported that their lunch programs were an opportunity to encourage healthy eating among students. These responses were selected from a pre-constructed list that permitted multiple responses (see Appendix D). The two most popular responses were that the lunch program was an opportunity for children to eat something hot ($n=12$) or that it was a service for parents ($n=9$) (McKenna, 1998). This service orientation also prevailed among food-service managers, “We feel we are here to provide a service to our customers” (Food-service manager, WS, 1998, p.3).

The typical organisation of food services within schools reflects this service orientation. School administrators may be responsible for overseeing the food services within a school, but generally have little involvement in their day-to-day operation. Teachers, parents, and students generally have even less decision-making involvement except if they use the food services as a source of revenue for school programs, a purpose that may conflict with nutritional objectives. School cafeterias are usually managed by food-service companies under contract to individual schools, or more commonly, to the school district. The school administration normally leaves decisions about the provision of the foods to the company. For example, one principal commented,

If there were no policy my concern with [the food-service company] would be, are they serving the food that [the students] should be eating? But since there is a policy I’m assuming that they are because I don’t eat down there every day (Principal, KD, 1997, p.1).

In schools without cafeterias, a group (usually some combination of school administrators, teachers, and parents) may run lunch programs for students one or more days per week. Menus generally consist of fast-foods or hot dogs. For example, of the 18 District F elementary schools whose principals were interviewed (McKenna, 1998), 13 ran lunch programs at least one day per week. Menus rotated between pizza, hamburgers, chicken burgers — from fast-food restaurants — and hotdogs prepared on site. Four of the schools offered such foods daily.

Likewise, school canteens or vending machines are usually operated by a school group, but once the decision is made regarding what foods to offer, a food company or wholesaler usually takes responsibility for delivering the needed items. In the District F survey (McKenna, 1998), all 18 schools offered either a canteen ($n=8$), vending machines ($n=3$), a snack program ($n=2$), or some combination of these ($n=5$). The most popular item offered was potato chips, which were sold in 14 schools, although four of the 14 restricted sales to once or twice per week.

The decision about what items to offer is influenced by a number of factors, including customer demand, cost, shelf-life of the product, availability, and convenience. When students are allowed to leave school grounds at lunch, competition from off-school food vendors is an additional factor. Under this circumstance, the food outlets, which operate by market forces of supply and demand, become competition for the school.

6.3 The Organisation of Nutrition Education

Within school classrooms in New Brunswick, the importance attached to nutrition is also low. Although students receive some nutrition education in a number of subjects, it is an area of low status. All students receive nutrition education during their K-6 years, as nutrition is one of six core strands in the Health Curriculum (NB Department of Education, 1981). While Health is currently a separate subject at the K-6 level, it will become an integrated subject once the new Health curriculum that is currently in draft form is

adopted. The new curriculum covers grades K-8 and addresses nutrition briefly in all grades (NB Department of Education, 1999b).

Nutrition is part of the Home Economics curriculum for students in grades 6-12. In grades 6-8 in some schools, Home Economics is a required subject; in others it as an elective. In grades 9-12, Home Economics courses are all electives. Nutrition is offered as part of a number of courses including Nutrition for Healthy Living (NB Department of Education, 1996) and Culinary Arts (NB Department of Education, 1994a). In recent years, Home Economics teachers have increasingly been re-assigned to teach non-Home Economics subjects (Personal Communication, SS, MB, AE, BM, 1998-1999).

The curriculum documents are based on a lifestyle approach to nutrition; that is, that nutrition decisions rest solely with individual. Moreover, the provincial curriculum documents do not reflect the newer directions within the field of health promotion that would have students study the effect of their environments on their health decisions by linking classroom education with the school's food services. This omission provides further evidence that the educational potential of these services is untapped.

Another means by which students may receive nutrition education is if the teacher integrates it into other subjects, such as Physical Education, Social Studies, or Science, an occurrence which depends on the knowledge and interest of the teachers. One high school science teacher, for example, stressed the importance of consuming water when teaching his students about cell respiration and how chemical reactions occur in an aqueous environment (Field notes, 12 May, 1999).

Not only is the visibility of nutrition in New Brunswick schools relatively low, teachers of nutrition, except those with training in Home Economics, may or may not have received any professional training to help prepare them to teach the subject; and in-service education for teachers in nutrition or health is rare.

Table 6.1 shows that the six schools profiled in this study reported that nutrition was taught in each, generally as part of health studies in the lower

grades, and by Home Economics or other teachers at the higher grades. Few teachers connected their classroom teaching with their school’s food services. Of the nine teachers who taught nutrition who were interviewed for the six school profiles, four had taken nutrition as part of their Home Economics training, one had received some nutrition education as part of her teacher training, and another as part of her physical education training. The other three had received no nutrition education during their training, but one of the three had participated in an in-service activity, a grocery-store tour with a dietitian.

Table 6.1 Nutrition Education in the Six Profiled Schools

	Classroom Nutrition Education	Links with Food Services
D1	Taught in grades 6-8 Home Economics courses	none
D2	Taught in Physical Education, Career and Life Management, and Family Living courses (grades 9-12)	some
F1	Taught in grades K-5 by classroom teachers, and in grades 6-8 by the Home Economics teacher	none
F2	Taught by K-5 classroom teachers in health	slight
F3	Taught in grades 6-8 Home Economics and Health	none
F4	Taught in Home Economics, Physical Education, Chemistry, and Biology (grades 9-12)	none

In the District F interviews (McKenna, 1998), all but one of the eighteen principals reported that nutrition was taught in their school, usually as part of the health curriculum (n=15). Only three of these schools offered in-service opportunities in nutrition for teachers.

6.4 Access to Food Programs

Access to food programs, such as breakfast, snack, or lunch programs, are generally organised on an ad hoc basis by individual schools. The school administration may take responsibility for organising them, or they may be organised by a parent or community group with financial support from the school or community. Like food services and classroom nutrition, access to food programs generally function in isolation from other school activities.

Of the six schools that are profiled in this study, only one had a breakfast program, although a second was in the planning stages (see Table 6.2). Two other schools had discontinued their programs. None of the schools had formal lunch programs such as may be found in England or Wales or the United States, however, all but one school made informal lunch-time provisions for students who did not have food.

Table 6.2 Access to Food Programs in the Six Profiled Schools

	Access to breakfast	Access to lunch
D1	Program discontinued due to low student participation	School will buy lunch for individual students in need
D2	School is in the planning stages of starting a program	Students can work in cafeteria for food
F1	No program	School will buy lunch for individual students in need
F2	Program discontinued due to lack of volunteers	Students can phone home or get food from the school
F3	Universal, free program began in 1998	School will buy lunch for individual students in need
F4	Breakfast available to paying customers	No program

6.5 Organisational Milieu of the Department of Education

The organisational milieu of the Department of Education was generally unsupportive of policy implementation. One departmental employee thought that political will was lacking.

You have to have the vision and the intestinal fortitude, I suppose to soldier on anyway. And that's what I felt about the nutrition policy. We didn't have a convinced political wing. We had a half-convinced political wing. On the one hand they saw it like motherhood that really couldn't do much harm if you adopted it and then when the reality struck they blamed the bureaucrats. They didn't come out and say, 'Why didn't you tell us that the people who make the food are going to raise Hell about this?' Well, that was one thing, but then the next day they found out that the people who eat the food didn't like it either. 'What are these bureaucrats trying to do to us?'. . . [The politicians] were not prepared (Retired departmental employee, EO, 1997, p.16).

The lack of political will meant the policy received relatively little attention. As a result, departmental staff had difficulty deciding how to deal with the health dimension of the policy, implementation was allocated limited resources, and the policy was not able to compete with major changes in the department occurring at the time.

The fact that the nutrition policy intersected the field of education and health made little difference in terms of how the policy was treated within the Department's organisational milieu. Like other educational policies of the time, the Department initiated the policy action, then gave primary responsibility for implementation to school districts, and expected schools to enact the policy without question. The implementation process respected the "line of authority," [something] very important at the time" (Retired departmental employee, AL, written comments on draft thesis, 1999). The implementation of the nutrition policy was typical in that three administrative levels were involved, but was atypical in that food-service companies, food manufacturers, and health professionals were also involved. Departmental staff acknowledged this difference, at least initially, when they tried to work collaboratively with the Department of Health and Community Services to implement the policy.

The major perceived benefit of collaboration was that the Department of Health and Community Services employed dietitians (as public health nutritionists), while the Department of Education did not. The Department of Education, in some cases, also worked collaboratively with the Department of

Agriculture whose marketing personnel assisted with implementing one of the principles of the policy — to promote New Brunswick grown food in schools.

The partnerships between departments appeared to succeed in some school districts. For example, in District F, the public health nutritionist was on the district nutrition committee. In another district, departmental personnel arranged for agricultural staff to meet with food-service staff to discuss how they could improve the nutritional quality of foods in the school cafeteria.

Collaboration, however, was not always successful. In District B, the public health nutritionist organised a Cafeteria Sampling Project (NB Health and Community Services, 1992) in co-operation with the Department of Agriculture. The purpose was to identify healthier foods, prepared with New Brunswick products, that students would enjoy eating. The group developed recipes, then conducted taste-tests with perogies (a Ukrainian dish of mashed potatoes encased in pasta), baked potatoes, and other healthy foods in school cafeterias. When these activities received publicity in the local paper, Department of Education personnel became upset because they had not been informed of the project. In another school in the same district, departmental personnel cancelled a ceremony that would have publicised the replacement of a soft drink machine with a juice machine that had been organised by the nutritionist and the vice-principal, and to which the press had been invited (Former public health nutritionist, BG, 1999, p.2).

The consequence was that, after some discussion, the Health and Community Services personnel in this district decreased their involvement with the policy: “. . . both were very above board and very up front, but it was just a lack of collaboration between the two” (District nutrition representative, DW, 1997, p.16). The nutritionist, in recalling the events, remembers being discouraged.

We were thinking ‘this is wonderful,’ but education had a different agenda. Health wasn’t dealing with caterers, they could focus on decreasing diseases and health risk. The schools were probably getting bombarded with a lot of things. There were very bad undercurrents (Former public health nutritionist, BG, 1999)

At the provincial level, the repercussion was that the members of the district nutrition committees were told by departmental staff that no policy-related activities were to be organised without the Department's approval (NB Department of Education minutes, 1993).

Although the attempt at collaboration indicated that departmental staff recognised that subject matter expertise was required for implementation, the Department did little else to acknowledge the unique nature of the policy. This is demonstrated by the fact that the overall implementation strategy for the nutrition policy was the same as for all other policies implemented at that time. The Department used a similar approach to implement a number of major policies in rapid succession "... we modified the schools, ... we [established public] kindergartens, we changed the high schools [by instituting semester-length courses], did the French immersion program, boom ba boom ba boom" (Retired departmental employee, EO, 1997, p.20). Because these changes were successful, "... when the food and nutrition policy came along, there was no reason for [us] to think that it would be any different than all of those other big things" (Retired departmental employee, EO, 1997, p.29). She outlined the anticipated implementation plan as follows:

So they had the study [survey of school districts], they took the study, they go with the policy, they convince the politicians to do implementation. Well, my goodness, the implementation was you go out and you get a committee. You give us your plan. We sanction your plan. We throw in some milk coolers. We negotiate with the milk people. You get your good price for milk. So milk is part of the food and nutrition policy, it's a good stick and carrot. We implement it (Retired departmental employee, EO, 1997, p.20).

The actions taken by the Department to implement the nutrition policy reflected its usual management approach, except that the low priority given to nutrition meant that few resources were allocated for implementation. Money, time, and expertise were in short supply. For example, no money was allotted to implementation until over a year after the policy was announced (White, 1992). Time was a scarce resource; departmental, district and school personnel were expected to add the responsibility for implementing the nutrition policy to their existing jobs. At the departmental level, the responsibility for

implementation was given to the three nutrition committee members and was added to their workloads.

Districts were responsible for seeing that schools actually made the changes associated with the policy and were to appoint a staff person as a district nutrition representative who could act as a liaison between the schools and the Department and could report on progress. With some support from the Department, districts and schools were expected to determine on their own how to put the policy into practice and deal with its implications for students, food-service companies, food manufacturers, teachers, parents, and school administrators. The policy document contained no information regarding possible strategies for implementation (NB Department of Education, 1991).

The specific responsibilities of the district nutrition representatives included overseeing the implementation of the policy in schools, administering the Excellence in Nutrition funds allocated to policy implementation beginning in late 1992, overseeing the data collection for school-based surveys sent by the Department, and attending provincial meetings with other district nutrition representatives. The district representatives came from a wide variety of backgrounds, including elementary specialists, a middle level supervisor, and a district Home Economics and Kindergarten Consultant. Their backgrounds meant that most of the district nutrition representatives had relatively little nutrition expertise they could contribute to implementation. The nutrition representative for District D, for example, commented that he did not know why he was picked. "I've never been involved in anything like that before" (District nutrition representative, KF, 1997, p.22).

In most districts, the nutrition policy was a low priority for the district nutrition representative. The representative from District F commented on her lack of time "... my whole emphasis in [those years] was on 80 kindergarten teachers. I could only get around to them twice a year so what could I do with student nutrition" (Retired district nutrition representative, SM, 1997, p.4). An added complication arose when district nutrition representatives changed their primary positions within the district. It was unclear if they were to retain the

responsibility for the nutrition policy or whether the person who assumed their old position was to become the nutrition representative. In District G, for example, a district not included in the study, the person who had been the district nutrition representative had left his district position and returned to work in a school. When his replacement was contacted about the policy in connection with this research, she did not appear to know about her potential nutrition responsibilities (Field note, October 8, 1997).

The policy also had implications for the workloads of personnel at the school level since schools were the sites for change. From a managerial perspective, the policy had the most significant implications for principals and food-service personnel, and to a lesser degree, teachers and others.

An additional way in which the policy environment disadvantaged implementation was that it allowed the policy to be diverted by other priorities. Because the nutrition policy was a minor departmental policy, it could not compete effectively with the major policies being implemented and the departmental re-organisation that was occurring.

The kindergarten, high school, and other policies mentioned earlier overshadowed the implementation of the nutrition policy. In addition, the early 1990's marked a period of significant re-organisation within the Department. The number of school districts was reduced from 42 to 18 and the number of superintendents from 33 to 18 (NB Department of Education, 1992). These changes were accompanied by a major re-organisation of job responsibilities within districts. As a departmental employee commented, "when we came out with the policy in 1991 there were major reorganisations. We [at the Department] were cutting districts and definitely at that time, the jobs [of the superintendents] were on the line, and it was not the time to come and educate them regarding [the nutrition policy]" (Provincial employee, AL, 1997, p.1). The current Director of Curriculum Development for the Department believes that departmental re-organisation was a major hindrance to successful implementation (Field note, Jan 8, 1998).

6.6 Discussion of the Organisational Milieu and its Effects on Capacity and Will

As was discussed in the previous chapter, and is evident in this chapter, the nature of the policy and the organisational milieu contributed to the lack of success of the Department's strategy for implementation. When implementation ran into difficulties, the Department either did not recognise or did not acknowledge the systemic factors that contributed to the problem. Because the policy was a low priority, rather than allocating the resources that would be required to fully address the problems of implementation, the government chose to allow the policy to be broadly interpreted.

The low priority of nutrition within the organisational milieu influenced the implementation of the policy in the schools in a number of important ways. For example, the tangential role of school food services and the weak organisational link between schools and nutrition hindered implementation. For implementation to succeed, school food services needed to be redefined in a way that incorporated a strong educational role. The Department did not seem to fully recognise this requirement as there was little coordinated attempt to work with districts to educate stakeholders about the implications of the expanded role or potential re-organisation of food services to meet it. Within curriculum subjects, nutrition had a low profile and there was nothing in the provincial curriculum documents to promote learning about school food environments. Likewise, access programs were organised on an ad hoc basis.

The organisational milieu reflects the low priority of nutrition in other ways as well. Although the Department made some effort to try to collaborate with Health and Community Services, local partnerships were not always successful. The Department spent little time or preparation thinking about how personnel from education and health might work together most effectively.

Other than minimal attempts at collaboration, the Department tried to implement the nutrition policy using traditional implementation approaches but the low priority of the policy meant that little money, time, or expertise was directed to it. Finally, when other major policies needed to be implemented

and the Department underwent significant organisational changes, the nutrition policy was unable to compete for attention and was pushed off the active political agenda.

From a health promotion perspective, the organisational milieu within the Department of Education, at the time the nutrition policy was developed and implemented, did not reflect the kind of milieu espoused by health promoters. The Department's overall approach was oriented more toward meeting educational goals than to concerns about process. This meant, for example, that the Department assumed collaboration would be effective rather than spending time to develop a plan for collaboration. It meant that people were not encouraged to participate in the process, they were expected to receive and act on information provided by the Department. A health-related policy was clearly a low priority for the Department of Education.

6.7 Summary

The lack of attention that the Department gave to the organisational milieu indicates that the implementation of the Food and Nutrition Policy for New Brunswick Schools was not just a problem of low capacity and will among stakeholders, it was a problem of political will for provincial politicians and the Department of Education. Both were unwilling, when they found that implementation was going to be much more difficult than had been anticipated, to devote the necessary resources to the process or to examine the organisational milieu to determine how the policy might more effectively be implemented. The Department did not recognise or did not acknowledge that implementation was going to require a major commitment of money, time, and expertise, and that an alternative approach to implementation was required.

The limited will at the departmental level to implement the policy did little to foster positive capacity and will among other stakeholders. Because the Department took little initiative to re-organise the milieu in which change was expected to occur, districts and schools were left with the responsibility. In many cases, they were handicapped in their efforts by a lack of capacity. As

well, the fact that the policy had a relatively low priority within the Department did little to encourage a strong will for districts and schools to implement it, nor did the failed attempts at local collaboration.

The preceding two chapters discussed the nature of the policy and the organisational milieu in which it was implemented. The next two chapters focus specifically on the policy process. Chapter 7 examines how the process of policy development influenced implementation and Chapter 8 examines how the department's approach to implementation affected implementation.

Chapter 7

The Effect of the Policy Development Process

7.1 Introduction

The development of the Food and Nutrition Policy for New Brunswick Schools was considered a significant achievement at the time. A department of education that was willing to address school nutrition at a provincial level was rare, and other jurisdictions expressed great interest in what New Brunswick had accomplished. “We got inquiries from across Canada, Africa . . . I had spoken about our policy in Ontario and Nova Scotia. They were very interested” (Retired departmental employee, TT, 1998, p.13).

Although McLaughlin (1987) does not discuss the potential impact of the policy development process on implementation, others, such as Jenkins (1978) and Bowe and Ball (1992), stress the inter-relationship among the various stages of the process. In the case of the Food and Nutrition Policy for New Brunswick Schools, the policy development processes of initiation, formulation, and adoption influenced implementation. The policy approach used by the Department affected implementation not so much by what was done, but by what was not. The policy development process reflected a top-down managerial approach. It was characterised by the assumption that the Department of Education had a clear understanding of the nature of the problem and knew best how to address it. This assumption meant that the department committee charged with developing the policy saw little need to consult with stakeholders at the front line. The lack of consultation proved to be a serious omission by the Department.

This chapter covers the origins of the policy. It combines a history of the policy development process through the stages of initiation, formulation, and adoption with an analysis of the effect of the policy development process on implementation.

7.2 Initiation

Prior to the development of the Food and Nutrition Policy for New Brunswick Schools, there was no provincial nutrition policy. Instead, guidelines published by the Department of Education (NB Department of Education, no date) were designed to assist schools with organising food programs. The guidelines included recommendations about the nutritional quality of food, sanitation practices, and the layout of cafeterias, but did not address nutrition education or the role of schools in providing students with access to food.

Despite the guidelines, two groups identified school foods as a problem and advocated changes. Each group defined the problem differently. One group consisted of two senior employees from the Department of Education who defined the problem as the poor nutritional quality of foods in schools. The second group was represented by Elizabeth Weir, the leader of the New Brunswick New Democratic Party (NDP), a left-of-centre political party. Her group identified the problem as hungry school children. The federal government also provided minor support for the development of a policy. In most cases, stakeholders who would be directly affected by a school nutrition policy — the school administrators, teachers, parents, students, food-service companies, and food manufacturers — were not requesting changes. They appeared to be satisfied with the status quo and were not consulted during policy initiation.

7.2.1 Concerns of the Department of Education

Two Department of Education employees played a key role in initiating the policy. They were concerned about the nutritional quality of foods for a number of reasons. For example, they had been approached by individual parents who wanted their children to have access to more nutritious food so that “what was being done at home would be followed through at the school level” (Retired departmental employee, AL, 1997, p.3). In addition, the employees themselves were concerned about the apparent contradictions

between the nutrition education that students received in their classes and the types of foods available in schools.

Evidence to support their concern came from “Foods Available in New Brunswick Schools,” a report of two surveys conducted by the Department of Health and Community Services (1990). “After a little investigation we learned that the Department of Health had done something in the past which related to the foods being served” (Retired departmental employee, TT, 1998, p.1). As described in the Literature Review, the surveys were conducted in provincial schools in 1981-82 and 1989-90. The report concluded:

There is still much progress to be made to reach an acceptable standard. It is thought that a provincial school food policy would give impetus to school boards to improve food in schools (NB Department of Health and Community Services, 1990, p.9).

As part of the policy, the report proposed that schools eliminate non-nutritious foods in order to strengthen the nutrition message. An earlier survey of school boards by the New Brunswick Association of Dietitians (1989) reached a similar conclusion. “The Association would like to see a provincial-wide Food/Nutrition policy endorsed by the Department of Education” (New Brunswick Association of Dietitians, 1989, p.1). They hoped their survey would be the first step in decreasing the availability of “non-nutritious” foods in schools.

Based on the above concerns, the Department of Education employees in 1990 approached their supervisors about school food and nutrition. They received support from both supervisors and politicians: “Someone has to take it on as a mandate to carry it through and we did get the support of the politicians after it was taken there. So I think the time was ready for it, as far as a policy” (Retired departmental employee, AL, 1997, p.4). Another employee felt that politicians “saw it like motherhood that couldn’t really do much harm if you adopted it” (Retired departmental employee, EO, 1997, p. 16).

A third employee commented on the positive political environment that surrounded policy initiation. She noted the strong ministerial support for the policy resulting from . . .

... the change in government from the Conservatives to the Liberals [in 1987], with the Premier's interest in improving the opportunities for New Brunswickers. He was concerned that children should get a good education and be healthy. To place an emphasis on this he developed a position of Secretary of State for Children which Jane Berry headed. She was instrumental in drawing the Ministers of Education, Labour, Agriculture, and the Environment to help establish a school milk program which would sell milk at a cost less than that charged for pop in the schools (Retired departmental employee, DR, 1999, p.2).

7.2.2 Concerns of a political party in opposition

Elizabeth Weir, the NDP Leader, also felt there were problems with school foods. She was concerned about hunger among school children from low social-economic backgrounds and helped to put it on the government's agenda by being the first politician to raise the problem in public. According to a district employee, "It actually stemmed from Elizabeth Weir probably in the house when she said kids were going to school hungry" (District nutrition representative, DW, 1997, p.14).

Weir's involvement occurred at a unique period in the history of the province. As a result of the election of 1987, the Liberal Party held all 58 seats in the legislative assembly. Although Weir was not an elected representative, as an opposition leader she was allowed to question the government in the legislative assembly on a regular basis. The Liberals established this practice to create at least some opportunity for debate.

Weir and the government both acknowledged there was a problem with hunger among children but differed on how to increase students' access to food. Weir wanted the government to establish provincial milk or breakfast programs targeting needy children. The government preferred to focus on policies to improve the general economy of the province. As explained by Lorraine Jarrett, the Minister of Income Assistance: "We do not isolate the children who are in poverty; we deal with all families who are in need. The millions of dollars that we have spent on training and initiatives will make these people self-sufficient, and in turn, those children will be able to care for themselves" (Hansard, 1991a, p.54).

Weir began, in April 1990, by asking when a free milk program in the province's largest city might be extended to other provincially-funded schools. The Minister of Education, Shirley Dysart, responded that ways to extend the milk program were under study. She added:

I can say that a committee has now been set up between my own Department and the Department of Health and Community Services, and nutritionists are involved as well. This committee will examine the entire question of food in the schools and what can be done to supplement the diets of those children in the province who are hungry and are coming to school without breakfast (Hansard, 1990a, p.527).

This departmental nutrition committee soon began to formulate the food and nutrition policy.

In November 1990, Weir asked if money had been budgeted for feeding kindergarten children. Dysart responded that no plans currently existed to allocate significant funds for this purpose. She noted that parents of children in all grades, not just kindergarten, were not always able to provide their children with food and that the nutrition committee was looking at options for addressing the problem (Hansard, 1990b).

In March 1991, Weir and Jarrett debated child poverty. Weir asked if an inter-governmental report on poverty was being withheld because it stated that "a significant portion of our children are chronically hungry" (Hansard, 1991a, p.53). Jarrett responded that statements about hunger were not the reason, although she agreed the report indicated some children and adults were hungry. Weir then questioned the Premier, the Honourable Frank McKenna, about the lack of initiatives in the throne speech to deal with child hunger. He responded that the government spent a great deal of time on these issues and also indicated that Weir's views were not going to influence his party's agenda: "When the government has a policy or wishes to introduce something, it will, and that is simply the position of the government" (Hansard, 1991a, p.54).

Once the report on poverty was published, Weir used the results to continue to pressure the government. She quoted the report as saying that 35,455 children lived in poverty and that a significant portion had to deal with chronic hunger. She asked the Minister of Income Assistance whether these

children would receive a food supplement. The Minister responded that she was not prepared to answer the question at that time (Hansard, 1991a).

Weir then asked the government about the number of programs in schools that provided food for children. She said the report stated there were only six free programs. Dysart assured her there were many more. Early in April 1991, Dysart provided a long list of school food programs collected from school districts. They included free food provided by: cafeterias; student councils; home and school associations; food banks; and community groups such as the Boys' and Girls' Clubs, the Protestant orphanage fund, church groups, home economics associations, and community-based centres. Funds for the programs came from the schools themselves or school fundraising activities, as well as from teachers, districts, food-service companies, and other organisations. Dysart concluded by stating that:

We have to admit that there are hungry children, but we are looking after them in the school system today. ... I don't know whether [Weir] is trying to win the election on the backs of hungry children, but if she thinks that the province and the school system are not looking after these children, she has another thing [sic] coming. They are being looked after (Hansard, 1991a, p.323).

Later in April, the policy was announced. This did not stop Weir from continuing to push for alternative action by the government.

7.2.3 Concerns of the federal government

The federal government was also concerned about the nutritional well-being of school children. In 1990, Health and Welfare Canada released *Canada's Guidelines for Healthy Eating*, a document that consisted of dietary measures Canadians could take to reduce their risk of chronic disease. Schools were one of the target groups for action and the government recommended that provincial and municipal governments: "(1) initiate coordinated comprehensive food and nutrition policies in schools, (2) ensure that foods served in Canadian schools be consistent with Canada's Guidelines for Healthy Eating, and (3) fully integrate nutrition into curricula at all levels of the formal education system" (Health and Welfare Canada, 1990, pp.47-48). Departmental staff

were aware of the federal recommendations and interpreted them as support for policy initiation.

7.3 Formulation

In mid-1990, the Department of Education established a departmental nutrition committee to investigate school foods and nutrition and to recommend changes. The committee was composed of the Anglophone and Francophone Home Economics consultants from the Department of Education who had raised the concerns about school foods, and the Senior Nutrition Consultant from the Department of Health and Community Services who was responsible for conducting the food surveys in schools. None of these individuals had prior experience in developing policies at this level. It quickly became clear that the committee intended to formulate a nutrition policy.

The approach by the committee to policy formulation, and all subsequent stages of the policy process, reflected attitudes described by Owens (1998) as representing the first wave of educational reform of the 1980's in which "regulatory mandates [were] imposed on the schools by [provinces]" (p.96). The committee members were committed to improving the health of New Brunswick students, and they were convinced of the power of policy to bring about change. The committee members from the Department of Education believed that once the policy was adopted by the government, districts and schools would be required to implement it. "At the end, even if they don't believe it is important, then it is part of their mandate. And if you are a manager and have to manage, I think it is like any other policy" (Retired departmental employee, AL, 1997, p.2). Her colleague echoed this view: "You don't have to agree with that. . . I mean it's a policy. A policy is not something that you can just throw under the table. I mean it went through the process with the Premier and everyone, you know. So if it's there then it should be followed" (Retired departmental employee, TT, 1998, p.21). The committee member from the Department of Health and Community Services representative had a different view. "People tended to see the policy . . . [as]

legislation. It should be made clear that this is a direction the Department of Education wants the school districts to go. It is voluntary” (Retired departmental employee, DR, 1999, p.5).

The Department of Education view predominated, however, and the assumption that guided both policy development and implementation was that stakeholders would be supportive, either because they agreed with it, or failing that, because it was a policy and part of their job mandate. Based on this reasoning, the committee felt that any other stakeholder concerns would be over-ridden.

The committee was given permission by departmental managers to formulate the policy under two conditions: (a) that the policy not recommend changes to existing curricula, and (b) that it not commit the government to any financial expenditures because the government was in the process of cutting costs to decrease its deficit. Other than these conditions, the committee was relatively free to develop the type of policy they felt was appropriate. Early in the formulation process, the committee hired me as a consultant for approximately six months.

Because the committee felt they had a clear understanding of the problems associated with school nutrition, they felt relatively little need to learn the views of front-line stakeholders. By not involving them, the committee saved time and money (Retired departmental employee, AL, written comments on draft thesis, 1999), and avoided any pressure stakeholders might have exerted to have the committee consider other policy alternatives. The initial tasks of the committee were summarised in the minutes of the first meeting in July, 1990 (NB Department of Education, 1990a):

1. to review actions regarding school foods and nutrition by other jurisdictions,
2. to review the current situation in New Brunswick, and
3. to recommend improvements and changes for the province.

The review of other jurisdictions revealed that Quebec was the only province where a policy existed at the provincial level. Elsewhere in the

country, nutrition was more likely to be addressed by school districts, if at all (NB Department of Education, 1990b).

The committee's effort to learn more about the situation in New Brunswick consisted of a mail survey sent to all 38 school districts. The purpose was to determine awareness and adherence to the provincial school food guidelines (NB Department of Education, no date) and to obtain information about food-related practices (McKenna-Breau, 1991). In recalling the survey, one employee described the results as . .

. . . shocking . . . I don't think we expected any great things happening but the fact [was] that the superintendents had just assumed all this was happening by the food-service people. . . Whoever was given the contract sort of just decided, "well, I'll do what I want" and a lot of our food areas ended up being . . . deep-fried food services (Retired departmental employee, TT, 1998, p.3).

The McKenna-Breau report (1991) indicates that, of the 35 districts that responded, only eight reported using either the provincial guidelines or their own nutrition policies in schools. No district policy was more than five years old. Even in the relative absence of policies, however, about 75% of the districts said they monitored the nutritional quality of foods sold in schools to some extent. With regard to providing food for needy students, about 50% of districts (n=18) helped to meet the food needs of children who had no lunches. Breakfast programs were rare and were available in only 15 schools (out of approximately 400) in nine districts. The survey's report concluded that there was a need for greater provincial co-ordination of nutrition services among school districts. It also recommended the use of a comprehensive approach to providing school food services that addressed the nutritional quality of foods, nutrition education, and student access to food:

Districts and schools should become actively involved in a cooperative effort with the Departments of Education and Health and Community Services to implement a mandatory policy on School Food Programs in all school districts over a three year period. The policy should include an implementation strategy (McKenna-Breau, 1991, p.16).

The report also noted that a policy would involve many different groups and expressed the following caution: "Each group approaches the issue from a

different perspective, but each subscribes to the overall objective of student well-being. It is important in the process to accommodate the different perspectives, but it is also critical to keep the overall objective firmly in place” (McKenna-Breau, 1991, p.15).

The committee began to draft the policy. To do so, they studied the results of the New Brunswick survey, related literature, and policies from other jurisdictions. This allowed them to propose and weigh various policy alternatives. The final policy contained three objectives, including the nutritional quality of foods and access to food, the problems that had initiated the policy process.

The first objective related to the nutritional quality of foods. This choice was natural given the pre-existing concerns of the committee members and the evidence in the literature that indicated that improvements to school foods were needed. In considering the policy alternatives, the committee weighed three options:

1. ensure that healthy foods were available in schools,
2. restrict but do not eliminate less healthy foods, or
3. eliminate less healthy foods.

The committee chose options 1 and 3, based on the conviction that a strong policy was needed and the earlier recommendations from Health and Community Services and the New Brunswick Association of Dietitians.

The committee used *Canada's Guidelines for Healthy Eating* (Health and Welfare Canada, 1990) as the criteria for deciding whether or not a food was healthy. Based on the guidelines, the policy emphasised a variety of foods and the provision of grains, vegetables and fruits, lower fat dairy products, and leaner meats, all prepared using lower fat cooking methods and with attention to sodium levels. A restriction on high sugar foods was added to try to minimise the risk of dental caries for school-aged children and in consideration of the length of time they spent in school. In addition, the policy mandated milk and fruit juice as the sole beverages; and included the stipulation that certain foods were not to be available.

The second objective related to nutrition education, although no changes were proposed to existing curricula. Instead, drawing on ideas from other jurisdictions, the policy emphasised nutrition activities that linked food services with classroom learning. The purpose was to encourage schools to extend and reinforce classroom nutrition learning using school food services.

The third objective related to access to food. It was included partly as a result of Elizabeth Weir's concerns about hungry children and was supported by literature that connected student learning with nutritional adequacy. The objective was vaguely worded, "All school districts will ensure all students have access to nutritious food during the school day" (NB Department of Education, 1991, p.3). As part of the implementation of this objective, schools were to "strive to" develop a plan and provide food for students who were without food and to sell milk at wholesale prices or lower. This wording avoided any financial commitment by the Department of Education.

Thus, the final policy addressed three areas of nutrition: the nutritional quality of foods, nutrition education, and access to food. The policy also included seven principles, which were based on the literature and on practices from other jurisdictions. The aim was for school food services to:

1. satisfy clients and encourage community support,
2. be sanitary and safe,
3. operate in pleasant environments,
4. be environmentally responsible,
5. purchase New Brunswick products first where possible,
6. use resources efficiently, and
7. provide food at an affordable cost and be self-supporting (NB Department of Education, 1991).

The policy contained no strategy for implementation except that it did make districts responsible for the "implementation of the policy, its efficient administration, and operation and control" (NB Department of Education, 1991, p.5). Work by the districts was to be facilitated by the Department of Education with assistance from the Department of Health and Community

Services and other government departments. The Department took no steps prior to implementation to determine the potential response of stakeholders who would be affected by it, a practice recommended by Rist (1994).

7.4 Adoption

April 24, 1991, signalled the formal adoption of the policy — Shirley Dysart tabled the policy document in the provincial legislature; it did not require a government debate or vote. In doing so, she read from the introduction to the policy. She stated the policy objectives and described how it aimed to develop good eating habits among students (Hansard, 1991b). The day the policy was announced, Weir did not refer to it, but asked Jarrett about organising breakfast programs for children. In her response, Jarrett referred to the policy, saying it “stated that all schools will be developing and implementing a plan that will provide good, nutritious food to the children” (Hansard, 1991b, p.947).

In order for the policy to be adopted, the departmental nutrition committee had communicated with the necessary government groups, but again, none of their actions involved districts or schools. Once the policy was adopted, the Department informed district superintendents who were then responsible for informing district staff and individual schools.

The first public indication that the policy might be questioned came a week after it was announced. Allison DeLong, a Liberal party backbencher, asked the Minister of Education to give “more details on the proposed plan to remove the so-called less nutritional food from the diets of school children and replace it with more nutritional food” (Hansard, 1991b, p.1179). Dysart said it would “not be accomplished overnight” (Hansard, 1991b, p.1179). She elaborated by saying that the aim was to have nutritious food in schools, to have a curriculum in every school that included nutrition education, and to determine to what extent children were not getting enough food at home. She said she had not established a time limit, although newspapers said it would be

accomplished in three years. She said that each district would be encouraged to implement the policy quickly.

7.5 Discussion: Approach to Policy Development and Capacity and Will

Analysed in isolation from the implementation process, no doubt many people would have regarded the development process of the Food and Nutrition Policy for New Brunswick Schools as a great success. A problem was identified, a decision was reached that a policy was an appropriate instrument by which to address the problem, and the policy was formulated and adopted, all with relative ease.

A number of factors contributed to the situation. First, school nutrition was regarded by politicians as a safe issue to support. Second, departmental staff were convinced of the rightness of what they were doing because they thought it would improve students' health; and third, the staff believed in the power of policy, which they saw enacted around them on a regular basis using the same procedures. Throughout the development process, Departmental staff retained ownership of the issue and defined it in their terms. They kept the issue within the narrow confines of the department which meant their position was left unchallenged.

Figure 7.1 presents a summary of the activities at departmental, district, and school levels throughout the initiation, formulation and adoption phases of the policy process. The analysis clearly shows that actions were concentrated within the department, and that districts and schools were not involved in any phases of the policy's development.

Figure 7.1 Summary of Policy Development

Initiation	Formulation	Adoption
Departmental Level <ul style="list-style-type: none"> • Department initiates the policy due to political and staff concerns 	<ul style="list-style-type: none"> • Departmental nutrition committee is formed • Committee surveys districts about food-related activities • Committee obtains information about policies from other jurisdictions • Committee writes the policy 	<ul style="list-style-type: none"> • Department takes policy to legislature to be tabled • Department informs district superintendents of the policy • Department makes districts responsible for informing schools
District Level <ul style="list-style-type: none"> • No district pressure to initiate policy 	<ul style="list-style-type: none"> • Districts respond to departmental survey 	<ul style="list-style-type: none"> • Superintendents informed
School Level <ul style="list-style-type: none"> • No school pressure to initiate policy 	<ul style="list-style-type: none"> • Involvement not requested 	<ul style="list-style-type: none"> • Schools hear of policy (?)

The Department missed three significant opportunities to consult with districts and schools during policy development. First, the Department could have consulted with stakeholders during initiation about the possibility of a policy and learned about their views on school food and nutrition. Instead, the impetus for initiation came from the Department. The broad stakeholder base that would be affected by a policy had not identified school nutrition as a problem, had not advocated for change, and was not asked for their views. Second, actions during the formulation phase did little to include stakeholders. Action remained within the departmental committee, which for example, reviewed the literature related to school nutrition, checked with other jurisdictions regarding their activities, and weighed policy options. The only role given to districts was to respond to the departmental survey. The committee gave no thought to consulting the districts and schools, parents, teachers, and students, or the food-service companies about the possible policy alternatives or potential effects of the policy. Third, during the adoption phase,

the departmental committee restricted their communications to district superintendents. Although schools were the organisational point at which change was required, school principals only heard about the policy indirectly. It appears that the idea of consulting was not considered by the Department. In providing written comments on the draft thesis, a retired departmental employee (AL, 1999) commented: "Did we ever develop a policy at the Department of Education applying this [principle]?"

These missed opportunities for consultation left the Department in a weak position when it came time to implement the policy. The lack of consultation meant that the committee did not know the pre-existing levels of stakeholder capacity and will. They had no way to know, for example, the level of public support for the policy. This was an important consideration because, as a departmental employee reflected, "... you won't get political support unless you get public support and if schools as institutions get ahead of the public, they are doomed to failure..." (Retired departmental employee, EO, 1997, p.16).

Because of their gaps in knowledge, departmental staff were at a disadvantage when trying to decide what resources would be required to increase capacity, and what implementation strategy might best foster will. The lack of consultation also meant that the committee did not recognise the unique qualities of the policy that were likely to pose a challenge to implementation and they were unprepared for the negative reaction to it. For their part, the departmental committee members could only assume stakeholders in the education system would be willing to implement an educational policy with a health goal.

In reflecting on the policy, one departmental employee attributed all the difficulties experienced during implementation to policy development. She felt that policy development focussed too much on what the committee desired, without attending to practical considerations.

I blame [the difficulties with implementation] on the policy developers; the people who have the responsibility to develop the policy. It would be the same no matter what the topic was. You go to the experts and

find out what is good and then you decide what is possible, and there wasn't enough of deciding what was possible (Retired departmental employee, EO, 1997, p.18).

7.6 Summary

The approach to policy development, analysed from a health promotion perspective, de-emphasised the process. The approach was more top-down than collaborative or participative. As such, it limited the sharing of ideas and opinions of stakeholders who would be directly affected by the policy. The Department had three opportunities to learn more about the existing will and capacity of the stakeholders who would be directly affected by the policy. The committee could have: (a) sought out stakeholder opinions during policy initiation, (b) included stakeholders in policy formulation, and (c) analysed the potential impact of the policy before implementation. None of these actions occurred because the committee had assumed that they did not require stakeholder input to address the problem.

The history of the development of the Food and Nutrition Policy for New Brunswick Schools illustrates the inter-dependence between the various stages of the policy process. The problems experienced during implementation were not just problems of implementation. They were problems that arose from the process used during the first three stages of policy development, particularly the lack of involvement of the stakeholders who would become responsible for implementing the policy. This knowledge serves as an introduction to the next chapter in which the history of the policy process is continued and the Department's implementation approach is more closely examined to determine its effect on the overall implementation of the policy.

Chapter 8

The Effect of the Approach to Implementation

8.1 Overview of the Implementation Process

If the nature of the policy, the organisational milieu, and the approach to policy development hindered implementation, so too did the approach to implementation. From the previous three chapters, a picture has emerged of a Department introducing an unpopular policy, developed in an organisational milieu where nutrition was a low priority and with minimal involvement from stakeholders. Chapter 7 showed that during the process of policy development, roles were clearly demarcated between the Department, districts, and schools. As will be evident in this chapter, the picture changed abruptly once implementation began and stakeholders were able to study the policy. Many stakeholders were concerned about the implications of the policy and quickly responded. Their responses caused the lines of action and reaction to blur as the process moved back and forth among the Department, districts, and schools in an iterative fashion.

McLaughlin (1987) states that implementation requires a combination of supports to provide resources for change, and pressures to maintain the change as a priority. The Department of Education used a number of different supports and pressures throughout the implementation process, but was largely unsuccessful in its efforts. This chapter documents the iterative nature of the process as summarised in Figure 8.1, and discusses the types of supports and pressures employed by the departmental staff as they attempted implementation.

This chapter discusses the policy implementation process in three phases. Phase one, initial implementation (1991-1992), was characterised by the greatest controversy both about the nature of the policy and the approach to implementation. During phase two, middle implementation (1992-1993), the government retreated from full implementation and provided funding for a less controversial policy objective: providing students with access to food. Policy

implementation was on the wane during phase three, later implementation (1993 onward), and although the Department made some attempts at implementation, stakeholders took few new initiatives. The chapter ends with an analysis of the effect of the departmental approach on implementation.

8.2 Initial Implementation: Mass Chaos, Upheaval and Uprising

The departmental nutrition committee, consisting of the two Home Economics Consultants and the Senior Nutrition Consultant from the Department of Health and community Services, was responsible for implementing the Food and Nutrition Policy. They planned to continue the same approach they had used to successfully develop the policy. They wanted to remain the active decision-makers during implementation and anticipated that stakeholders would passively follow their directions.

The implementation strategy of the departmental committee was to first inform stakeholders about the policy. After that, they expected stakeholders to develop a plan and to then implement it:

We wanted to apply this policy. We wanted to give them three years to implement it. If it had been taken seriously and they had done their plans like we thought they would, and over three years it could have been done, because they were to identify what they would do the first, the second, and the third [years] and everything would have fallen into place (Retired departmental employee, AL, 1997, p.9).

During 1991, the committee travelled as a team to districts and schools to explain the policy and their strategy for implementation. The committee's presentation included a history of the development of the policy and nutrition information related to the health and learning of school children. The role of the nutrition consultant was to deal with the health aspects of the policy. The departmental committee had no funds to support implementation, but provided nutrition information and ideas to food-service staff. "For example, the nutritionist from the Department of Health [and Community Services] and I brought someone from [the Department of] Agriculture just to talk about certain foods and how they could implement the policy and make their foods a little more nutritious" (Retired departmental employee, TT, 1998, p.11). The

Figure 8.1 The Policy Implementation Process

Department of Education	Districts, Schools and Other Stakeholders
<p style="text-align: center;">Phase I — Initial</p> <ul style="list-style-type: none"> explains policy as written (1991) responds that funding is a separate issue and choices should be healthy (1991) acquiesces to opposition and alters interpretation of policy (1992) 	<p style="text-align: center;">Implementation (1991-1992)</p> <ul style="list-style-type: none"> oppose removal of certain foods because of fund-raising and choice continued opposition but a few districts and schools begin implementation implement altered policy in some cases
<p style="text-align: center;">Phase II — Middle</p> <ul style="list-style-type: none"> directs attention to student access to foods and provides funding for equipment (1992) 	<p style="text-align: center;">Implementation (1992-1993)</p> <ul style="list-style-type: none"> resent allocation of access money, but in the end the number of access programs doubled and most schools adopted the milk program
<p style="text-align: center;">Phase III — Later</p> <ul style="list-style-type: none"> publishes booklet on implementation (1992) meets with district nutrition representatives (1992) monitors district activities (1992) evaluates impact of access funding (1993, 1995) disbands departmental nutrition committee due to retirements (1996) discontinues access funding (1999) 	<p style="text-align: center;">Implementation (late 1992 - on)</p> <ul style="list-style-type: none"> pay little attention to departmental actions — view policy as a “good-will policy” with optional implementation disband district nutrition committees overall implementation inconsistent

Department of Education took no formal measures to exert pressure; the existence of the policy was assumed to be sufficient to assure implementation.

This was not the case. The Department of Education's approach towards implementation caused significant resentment among stakeholders. It is impossible to assess how much of the opposition was due to the nature of the policy as discussed in Chapter 5, and how much was caused by resentment to the approach used by the Department; but certainly the latter was a factor. According to one person who was a teacher and student council advisor at the time, and who later held an executive position with the provincial teachers' association: "The way the policy came in, it was simply dropped on schools and the schools were simply told this is the nutritional policy. . . [There was] no room for movement" (Teachers' association executive, DG, 1997, p.6). In her opinion, implementation "can't be done from the top down because I will tell you that the original nutrition policy that came out from the Department angered just about every person in the province who was dealing with [it]. It really did" (p.2). A principal commented:

The policy was dictatorial, even though it wasn't formally intended to be dictatorial I don't think. But the interpretation became that way and basically we had a revolt on our hands from students and staff. The staff were adamant. They were so upset. We weren't able to make choices anymore (Principal, WT, 1997, p.17).

Another high school principal characterised the impact of implementation as "mass chaos, and upheaval, and uprising" (Principal, KD, 1997, p.16).

One Department employee commented that her colleague "still has scars from travelling around the province [to inform districts about the policy]" (Retired departmental employee, EO, 1997, p.15). The employee in question said she attributed at least some of the negative reactions not to the policy, but to district and school concerns about other departmental actions to cut-back on finances and to amalgamate districts. She felt districts and schools used her presence, as a representative of the Department, to vent their frustrations.

The Department was not prepared for the negative reaction to their approach to implementation, just as they had been unprepared for the negative response to the nature of the policy. The committee tried to offset stakeholders' concerns about fund-raising, student choice, and the priority of nutrition; but other than that, they had no alternative implementation plan regarding the policy objective dealing with the nutritional quality of foods and the stipulation about the availability of foods. In the end, as discussed in Chapter 5, they altered the interpretation of the policy to fulfil stakeholder wishes, but left the wording of the policy unchanged. As explained by a food-service executive:

Some people take it as being policy, other people take it as being guidelines and that's where it becomes very difficult for us, I think, as a food-service company to implement it because, depending on who you are talking to it is a policy or it is a guideline. There are some very specific clauses but at the same time there are loopholes in those clauses and depending on who is reading it and how they interpret it, everyone comes back with a different read on it. And there are some areas that you can sort of get in between and are able to still have things if you are reading it in black and white, shouldn't be available (Food-service executive, JP, 1997, p. 3).

In hindsight, one of the departmental employees regretted how the departmental dealt with the opposition to the policy. She felt that "we should have been smarter." She identified a key turning point in the process as being the controversy arising from the radio interview with the public health nutritionist that resulted in the owner of McCain Foods Ltd. becoming very upset.

I'm going to tell you that the local media climbed right aboard. Everybody, including the Minister of Health, got in on that fiasco and everybody backed down and in a way that was a real loss . . . We should have turned that around and said, 'What if it were true?' and got the debate going that way instead of trying to say, 'No, no, we didn't mean that. We will never take your rights away' (Retired departmental employee, EO, 1997, p.15).

The same employee also commented that, "for some reason, we lost the ball, I don't know why" (Retired departmental employee, EO, 1997, p.8).

The motivation behind the various attempts to implement the policy by a few districts and schools came from two main sources. First, the administrators in these districts and schools perceived that, since a policy existed, it should be implemented like any other policy. As one district employee stated,

This was the Department of Education policy. If schools or districts did not implement other policies, there would be heck to be paid. And this was the policy and so we took it as such. When the province develops a policy it's our role and our job to administer and implement it and that's what we did (District nutrition representative, KF, 1997, p.20).

Second, the majority of these administrators held personal beliefs about nutrition comparable to those of the departmental nutrition committee. They either valued the potential health benefits that could result from the policy or believed that good nutrition assisted with student learning. In the opinion of one district employee, "The school should be providing good nutritious foods and nutrition information to students because of our lifestyles today. It's very important that they do so" (Retired district nutrition representative, SM, 1997, p.1). A principal commented: "you know we function better when we have food, good food. . . It's important" (Principal, WT, 1997, p.23).

8.3 Middle Implementation: Promoting Access to Food

The shift by the Department in its interpretation of the policy signalled the end of the most contentious phase of policy implementation, but the Department did not abandon it. Instead, beginning in 1992 they tried another implementation strategy which entailed re-defining the policy to increase the likelihood of implementation. The Department's efforts illustrate the close connection between what came to be perceived as "the policy" and the approach to implementation. The overall approach was to shift attention away from the largely unsuccessful attempt to improve the nutritional quality of foods and to focus on a policy objective that had previously received little attention — providing access to food for students. The Department hoped that

this strategy would result in increased student access to food and would eventually encourage schools to implement all three policy objectives.

The change of focus for the Department also meant a change of focus for the committee. “We sort of shelved the whole, not the food and nutrition policy as such, but sort of put a halt on moving forward and then looked at a breakfast program” (Retired departmental employee, TT, 1998, p.18). The change in focus also had fewer implications for food-service companies and food manufacturers so the Department did not have to be as concerned about their reactions.

The Department took two major steps to implement the access objective. First, departmental staff led efforts to establish a milk program for school students. Second, an “Excellence in Nutrition” program was created which allowed schools to purchase equipment to establish or expand breakfast, lunch, or snack programs. For the first time, the Department offered financial support to districts and schools to implement the policy, although it took no formal measures to exert pressure.

The milk program was promised, in August 1991, by Premier Frank McKenna as part of his provincial election platform (Waters, 1991). The McKenna government won the election and announced a universal, subsidised milk program in January 1992 (Waters, 1992). Milk prices were to be cut one-half to two-thirds for all school children and the Department of Education allocated \$300,000 to purchase coolers for schools. In developing the program, the government considered two other alternatives:

1. offering a targeted program of free milk to children of families on welfare which they rejected to avoid stigmatisation; and
2. establishing a universal free program which they rejected because of its estimated cost of \$1,000,000.

At the time of the announcement, Paul Duffie, the new Minister of Education, said the Department was asking schools to develop a plan regarding “how they handle hungry children, if they have any” (Waters, 1992). Depending on the response, Duffie thought the government might then have to study the

possibility of subsidisation. Elizabeth Weir, now an elected member of the legislature, criticised the milk program as a promotional tool for the dairy industry. She had spent 1991 and 1992 pushing for a school breakfast program to help hungry children learn more effectively and thought this should have been part of the announcement (Waters, 1992). She viewed the milk program as an inadequate response to the problem of hungry children.

In April 1992, Duffie spoke to the Home and School Federation about nutrition and said the Department was working on promoting healthy eating instead of offering a free breakfast program (Ouellette, 1992). In June, 14 months after the adoption of the policy, he held a news conference and said that the province was moving the school nutrition policy beyond philosophy toward implementation (Richardson, 1992).

The big announcement came in September 1992, when Duffie announced the “Excellence in Nutrition” program. The government allocated slightly over one million dollars to nutrition programs in elementary schools from a total of \$61.1 million for a variety of Excellence in Education initiatives (White, 1992). Schools could use the money to purchase equipment for feeding programs but were responsible for finding other sources of funds to cover the remaining costs. As well, districts and schools had to decide how to organise the access to food programs as the Department did not have a plan. “We’re challenging districts,” said Duffie. “We’ve put this in the hands of districts and said: “Look, we have a provincial nutrition policy. It’s up to you to implement that” . . .How they do it, I don’t know. They may come up with innovative ways” (White, 1992, p.2).

By offering funding to schools for the access programs, the Department offered a more tangible form of support to districts and schools. One departmental employee spoke of the milk program as a “good stick and carrot” (Retired departmental employee, EO, 1997, p.20), designed to increase the willingness of districts and schools to implement the whole policy. This assumption proved incorrect. At least initially, the funding did not motivate educators to implement the access objective or any other part of the policy. As

discussed in Chapter 5, educators questioned the political motives of the government and whether money should be spent on nutrition when they needed book resources. As well, some educators felt the program meant added work. A departmental committee member explained that although support from “parents was great, we didn’t get great support from a lot of educators because they thought, ‘Here is something else for us to do. Now we have to collect money for milk and see that all of the kids get milk’” (Retired departmental employee, TT, 1998, p.5).

The Excellence in Nutrition program was organised so that the district nutrition representatives administered the funds. Departmental guidelines specified that funds could not be used to “buy food items. They had to buy machinery and utensils and things that would encourage and enhance a breakfast or lunch program or both in the schools. I looked after the distribution and also approval of where these monies were going to be spent” (District nutrition representative, DW, 1997, p 5). Although this representative felt there was some abuse of the money, “breakfast programs cropped up as a result of that committee and as a result of the funding from the Department” (p.6). Some schools established emergency cupboards for students; “. . .they have boxes of crackers and peanut butter and [other] food items for children who might forget a lunch” (p.7).

Approximately \$200,000 per year was allocated to the Anglophone education system and \$100,000 to the Francophone system through the Excellence in Nutrition program. The Department’s Director of Curriculum Development recalled that some districts had difficulty spending the money allotted to them (B. Lydon, personal communication, September, 1999). They could think of nothing else they needed and wanted to spend the money on other items, but that was not permitted. One year, the Department itself used the money to purchase biology textbooks. In 1999, the funding for the program was cut, but was then re-allocated in August 1999, when a newly elected Progressive Conservative government decided to pilot a breakfast program in

all Kindergarten through grade 5 schools in two districts (NB Department of Education, 1999b).

The Department evaluated the results of the Excellence initiatives, the only aspect of the nutrition policy to be evaluated. Three surveys were sent to elementary school principals, two in 1993 (March and December) and a third in 1995 (April). The purpose was to determine the degree of implementation of programs to provide needy students with access to food (NB Department of Education, 1995). All but one of 306 elementary schools (grades 1-6) responded to the 1995 survey. The survey found that the number of breakfast programs had more than doubled. In 1993, 17% (n=51) of schools offered programs; by 1995, 41% (n=125) were offering such programs. Lunch programs also increased from 50% in 1993 to 71% in 1995 (although these were not necessarily free for students). In total, the Department estimated that programs were reaching approximately 2,000 of the 85,000 students in New Brunswick schools. Programs were often organised by Home and School associations or community groups with some support from school staff.

The survey found that much of the money allotted to the Excellence in Nutrition program was spent buying appliances, cooking utensils, and tableware (NB Department of Education, 1995). In assessing the provincial milk program, the results were that 88% of schools offered at least one milk product (either white or chocolate milk in a glass or carton) at the subsidised price. In terms of the availability of other nutritional foods, fresh fruit was available — daily in 41% of schools and sometimes (e.g., once per week) in 28% of schools — but was unavailable in another 28%. The evaluation included no assessment of the effect of the policy on the nutritional status, or the health or learning of students.

The results of the evaluation appeared to have little impact on subsequent departmental or stakeholder actions. There were no consequences for schools that did not establish a milk program or that took no action to increase student access to food. Nevertheless, the Department's actions to

promote student access to food was the most significant accomplishment of the policy.

8.4 Later Implementation: Policy on the Wane

Although the Department's attempt to implement the access objective was quite successful, it did not lead, as the Department had hoped, to implementation of the policy as a whole. In general, after 1993, interest in the policy from both the Department and stakeholders gradually waned. Between late 1992 and 1994, the departmental committee took a number of initiatives by:

1. publishing a booklet on implementation,
2. surveying districts about implementation, and
3. holding meetings with district representatives.

None of these actions appeared to have a significant impact on implementation, although each of them could have functioned as either supports — providing resources, monitoring, and opportunities for feedback; or pressure — as reminders that the Department still expected district and school action.

The departmental committee published a booklet on implementation, *Food and Nutrition Policy for New Brunswick Schools: A Beginning Guide* (NB Department of Education, 1992), almost two years after the policy was announced. The departmental committee distributed it to district representatives who were then responsible for providing it to schools. The publication was intended to support schools during implementation activities. It was a planning guide that allowed schools to assess themselves regarding each objective and to then prioritise their actions and develop a plan for implementation. As part of the assessment, for example, school administrators were asked to identify which foods from a list of nutritious and less nutritious foods were available. They were also asked if they actively encouraged students to select nutritious foods or to apply their nutrition education from their classes; and to indicate the availability of various food services and

whether programs existed for students who came to school without food (NB Department of Education, 1992).

At least one department employee expressed disappointment with the reception to the document:

[The Department] . . . prepared [the guide] on paper. With all the paper that went [into] looking at [the policy]; the second time that I met with my people who were responsible in the district, I was tempted to ask them did they even know where the copies had gone to, but I didn't since we could not afford to alienate them (Retired departmental employee, AL, 1997, p.9).

The second action taken by the departmental committee was to ask districts to complete surveys on implementation. A departmental committee member said that surveys were sent, on at least two occasions, to superintendents to be distributed to principals. The Department tabulated the results, which were then shared with districts. One committee member commented that the results highlighted discrepancies between districts and schools regarding their perceptions about implementation. For example, the survey asked,

'Is [there] some [program] in the school regarding the food policy for children who come to school without food?' Often, the principal said there was not, but according to some of the [district nutrition representatives], in their head, the policy was implemented — period. They all wanted to look good on paper (Retired departmental employee, AL, 1997, p.4).

Despite the inconsistencies, it does not appear that many schools or districts were motivated by the survey results to change the situation.

The third action taken by the departmental committee was to hold annual meetings with the district nutrition representatives. By this time, each district had been asked to form a Food and Nutrition committee. Minutes from two of these meetings are available. At the meetings, district representatives reported on their activities. The December 1992 meeting was attended by seven of the twelve districts. Three districts mentioned that they had established nutrition committees, while others were still in the process of organising them. At this meeting, one district representative reported that not

all schools were selling milk, in some cases because they were not convinced there was a need (NB Department of Education, 1993).

Ten district representatives attended the meeting in March 1994. This was the year full implementation was to be reached, but reports showed that districts varied considerably in terms of what had been achieved. While one district predicted full implementation by the following September and others had developed implementation plans or established school committees, at least one district did not yet have a plan of action. Plans formulated by districts were more likely to reflect the re-interpreted policy, not the policy as written (NB Department of Education, 1994b).

These meetings also allowed the Department to continue to emphasise the importance of the policy. At the 1992 meeting, for example, district representatives were told that the Minister of Education was supportive of the policy and committed to its implementation (NB Department of Education, 1993).

When 1994 arrived, the Department was unsure how to proceed. One employee reported that she thought implementation had been extended by two years, although at another point said, “we sort of went along with it for three years and then it was up to the district to take responsibility. We weren’t going to continue. We would still help them in any way we could” (Retired departmental employee, TT, 1998, p.12).

Although implementation was far from complete, related departmental activities slowed after 1994. One reason was a change of focus within the services provided by the Department of Health and Community Services to pre-school children. More importantly, between 1994 and 1996, the policy lost its major champions, as all three departmental committee members retired. During that time, the Department of Education underwent further re-organisation. The Home Economics consultant positions were eliminated and the nutrition policy became the responsibility of the Director of Curriculum Development, who is responsible for all subject consultants in the Anglophone sector at the departmental level. He administered the money in the Excellence

fund until 1999. He is well aware of the problems faced by the policy and would like to see the implementation of a “nutritionally defensible” policy in schools (B. Lydon, personal communication, 1997).

Throughout the process of implementation, the Department never provided supports or pressures to implement the policy objective dealing with nutrition education. It is ironic that even though this was an education policy, there was never a strong educational component for school administrators, teachers, parents, students or food-service personnel. The departmental committee provided information about learning and health during the period of initial implementation but never provided additional educational resources, in-service education, or point-of-purchase information. A departmental employee commented that it was difficult to get nutrition on the program agenda at professional development days for teachers because of its low priority (Retired departmental employee, AL, written comments on draft thesis, 1999).

Although initial implementation was marked by controversy, the subsequent response to the policy by stakeholders consisted mainly of inaction. According to one departmental employee, stakeholders hoped that the policy would disappear.

. . . what professionals have learned to do extremely well is sit on their hands and if you sit on your hands, nothing happens. You don't have to be nasty to people, you don't have to argue with them, you don't do anything; you just do nothing and sometimes, they have learned, that the policy will go away and nobody wants to fight those big battles because you had food companies. So you just let it die and finally it will go away and we will get back to our old selves (Retired departmental employee, EO, 1997, p.20).

Other departmental employees corroborated these remarks when they reported superintendents' comments. These employees reported that food-service companies were told, “You try and see what you can do but this is not going to hold. [The Department] came out with this but after a year or two they are going to have to give this up” (Retired departmental employee, AL, 1997, p.10). This was echoed by another employee who said food-service people were told: “Don't worry about it. It'll go away. We [the committee]

were told that. Eventually it will just go away” (Retired departmental employee, TT, 1998, p.25).

For districts and schools that were inactive, there were no consequences. If districts or schools decided not to implement, “we didn’t have anything in place [to pressure them]. We just hoped that they would, depending on their goodwill” (Retired departmental employee, TT, 1998, p.18). The perception that this was a “good-will policy” for which implementation was optional, extended beyond the Department to districts and schools. A vice- principal described schools as being on an “honour system”.

We should incorporate nutritious foods and should make more of an effort in terms of an educational aspect to promote better eating habits and every school was sort of put on their honour to do so. . . . But I guess people sort of got lax . . . So it improved for a little while but now it’s back to its old ways (District nutrition committee member, MU, 1997, p.12).

For districts and schools that made an attempt to implement the policy the Department gave no rewards or recognition. While monitoring occurred through surveys, there was never any on-site monitoring conducted by the Department.

In the end, the decision to implement all or part of the policy, which parts to implement, or whether to implement at all, was left to each district and school. Despite efforts to organise committees and push for implementation at district and school levels, the Department was never able to achieve consistent implementation of the policy, and overall was only able to achieve minimal implementation except for the milk program and some of the Excellence initiatives.

Some food-service caterers found the lack of consistency in the application of the policy frustrating. In these cases . . .

. . . [the district] has said to [food-service companies], ‘do whatever you need to do to make money’. So of course they have openly said, ‘we don’t care about the policy’. [The district says] ‘We know about it. Pretend it’s not there. Do whatever you want’. So, of course they go ahead and do whatever they want and nobody does anything about that. Now again, if the [district] is happy and the [food-service] contractor is

happy, and the province isn't auditing, then no one has a problem (Food-service representative, JP, 1997, p.21).

At least one departmental employee expressed her disappointment with the overall result of the implementation process, although she sympathised with the district representatives. In her opinion,

There were a few changes when I was there but not all that many. [The district representatives] have this responsibility among twenty other things, so that is not necessarily their priority. It's not necessarily their background and they were given this extra thing to do (Retired departmental employee, AL, 1997, p.10).

8.5 Discussion: Approach to Implementation and Capacity and Will

The review of the implementation process shows that members of the departmental nutrition committee were very sincere in their desire to implement the Food and Nutrition Policy for New Brunswick Schools, and were committed to promoting public healthy eating in schools; but were unable to find the combination of supports and pressures to achieve consistent implementation. Certainly, as earlier chapters indicated, they were disadvantaged from the outset:

1. The nature of the policy, because of its implications for fund-raising, student choice, and its low priority, had a negative impact on the capacity and especially the will of many stakeholders to implement the policy.
2. Because the organisational milieu emphasised the low priority of nutrition and the departmental will to implement the policy was weak, stakeholder capacity and will to implement the policy was also weak.
3. The lack of consultation during the policy development process meant that the Department did not know the existing levels of capacity and will and had not investigated which implementation strategies for increasing them would be most positively received.

Furthermore, the assumption made by the departmental committee that a top-down implementation process would work, limited the number of implementation strategies they considered that could be used to increase

capacity and will. The implementation strategy that was used shows how the nature of the policy and the approach to implementation influenced each other. The initial reaction by stakeholders to the policy helped to define it in a certain way. After this led to controversy, the Department tried, with mixed success, to re-define the policy by switching the emphasis. The Department never succeeded in having a significant number of stakeholders address all aspects of the policy. Instead, stakeholders were given considerable discretion regarding their interpretation of the policy.

The departmental committee's approach to implementation was disadvantaged because it was given limited resources to work with, perhaps because of its low priority or because of initial assumptions that implementation would be straightforward. The combination of pressures and supports used by the Department and their effect are summarised in Figure 8.2.

Figure 8.2 Implementation Supports and Pressures

Phase	Supports	Pressures	Result
Initial	Information about healthy eating provided to schools	Any policy will automatically be implemented	Did not work — many stakeholders opposed policy
Middle	\$1,300,000 allocated to fund access to food initiative		100% + increase in access programs; almost 100% of schools set up milk programs
Later	Booklet on implementing the policy	School surveys & meetings with district representatives	Little impact on implementation
Summary	Funds assisted with capacity to increase access to food	Pressure of policy caused small group of schools and districts to implement	Overall result — inconsistent implementation

The initial phase of implementation was characterised by a minimal attempt to increase the capacity and will of stakeholders, since it was assumed that the existence of the policy was pressure enough to ensure implementation. The departmental committee provided support in terms of information, but used no additional formal measures to increase pressure. The approach did not have the desired effect; instead, it contributed to negative will to implement the policy.

During the middle phase, the money allocated to the milk coolers and the Excellence in Nutrition initiatives helped to increase the capacity of schools to provide access to food for needy students. The Department hoped that it would also increase their will to implement the other policy objectives, but in this case, the effect on will was often negative, at least initially. Stakeholders resented money being allocated for nutrition purposes and the funds did not make them more willing to implement the rest of the policy. In the end, however, almost 100% of schools established the milk program and the number of schools offering access programs more than doubled; so positive results were seen. Perhaps this is a case, as Fullan (1991) says, of a school needing to undergo the change before they find the will to do it.

The third phase represented the Department's last attempts to implement the policy. The booklet on implementation might have helped schools assess their capacity and provide them with direction, but it was not well distributed. The surveys and meetings, forms of pressure to increase their willingness to implement, appeared to have had little, if any, effect. Throughout the process, the Department gave no recognition to schools that changed, nor were there consequences for those that did not. There was no school-based auditing of implementation and no significant effort to involve stakeholders in the educational aspects of the policy by focussing on the second objective dealing with nutrition education.

8.6 Summary

Overall, the department's top-down approach to implementation had a negative impact on the will of stakeholders to implement the policy. Their opposition led to a re-interpretation of the policy. The government acquiesced and then tried to re-define the policy by shifting the emphasis to another policy objective. This action resulted in some changes, but did not increase the willingness of stakeholders to implement the overall policy.

From a health promotion perspective, the analysis indicates that the departmental approach was heavily weighed toward outcomes rather than process. Little thought was given to how the policy objectives would actually be achieved; it was simply assumed that they would. The events that occurred showed that the top-down approach could not be sustained. People demanded to participate in the process and when they did, it was not in the direction that the Department wanted. The results of the departmental approach, and its subsequent negative impact on will, is an important reminder that process plays a key role in implementation.

While it is relatively easy in hindsight to identify problems with the departmental approach to implementation, a major purpose of this research is to provide recommendations that would result in a more effective implementation in future. For this reason, it is less helpful to dwell on the negative aspects of what occurred, and more useful to examine local conditions in districts that attempted to implement the policy as a means for determining what can be learned from their experience. Chapters 9 and 10 capture the local variability that resulted from the policy by providing profiles of six schools in two districts.

Chapter 9

Local Variability:

Nutrition Policy Profiles of Selected Districts and Schools — District D

9.1 Introduction

The preceding four chapters identified and analysed the factors that influenced the implementation of the Food and Nutrition Policy for New Brunswick Schools. These factors were: (a) stakeholder concerns about the nature of the policy, (b) the low priority of nutrition evident in the organisational milieu, (c) the lack of consultation during policy development, and (d) the department's use of a top-down approach to implement the policy.

In identifying and discussing the factors that influenced implementation, the analysis was conducted primarily at the macro-level and concentrated on interactions between the Department of Education, districts, and other stakeholder groups. The conclusion from the analysis is that the above factors contributed to a generally unsuccessful implementation of the policy. While McLaughlin (1987) acknowledges the important influence of the macro-level on implementation, she also stresses the wealth of information that can be obtained from studying events at the micro-level. The next two chapters focus on documenting the local variability in two districts that tried to implement the policy. The purpose in profiling these two districts was to gain information about local level implementation that could be used to inform the recommendations for future implementation.

Chapter 9 consists of nutrition policy profiles of District D and two district schools, Chapter 10 profiles District F and four district schools; the participants are indicated in Figure 9.1. Both chapters trace the districts' approach to implementation and subsequent actions by schools in terms of school foods, nutrition education, and access to food programs for students. Each school profile includes an analysis of its approach to implementation, including the effect of the nature of the policy and the impact of the organisational milieu. The chapters conclude with a discussion of how the

factors that influenced implementation and the capacity and will of stakeholders to change were manifested at the district and school level.

Figure 9.1 Participants in the District and School Profiles

Level	Sample
District D	District nutrition representative
School D1	Principal; Physical Education teacher; parent; 1 grade 7 class
School D2	Principal; Physical Education teacher; parent; 3 High School Physical Education classes
District F	District nutrition representative; retired district nutrition representative; district nutrition committee member; 18 elementary school principals
School F1	Principal; Physical Education teacher, Home Economics teacher; Classroom teacher; parent; 2 students; cafeteria manager; 1 grade 6 and 1 grade 7 class
School F2	Principal; Classroom teacher; parent; 2 students; 1 grade 4 class
School F3	Principal; Home Economics teacher; Classroom teacher; 2 students; cafeteria manager; 1 grade 8 class
School F4	Principal and Acting principal; Two Home Economics teachers; parent; 2 students; cafeteria manager; 3 High School Home Economics classes

9.2 Policy Implementation in District D

District D is located in the southeast of the province and includes the province's second largest city. There are 14,219 students in the district distributed among 31 schools: 5 high schools, 17 combined middle and elementary schools, and 9 elementary schools (NB Department of Education, 1999a). District D devoted a lot of energy to implementing the Food and Nutrition Policy for New Brunswick Schools: "We really gave it a high profile" (District nutrition representative, KF, 1997, p.20). District D actively tried to implement the policy from 1992-1995. Efforts within the district were led by the district nutrition representative whose main responsibility was to supervise schools at the middle level. His professional background was in Art Education.

The district nutrition representative formed a District Nutrition Committee, which he chaired. The members were the Director of Finance and Administration for the district, two high school students, a Home and School representative, the district Home Economics coordinator who was also a high school teacher, two principals, representatives from the food-service company, and the purchasing agent from the district. The District set three goals related to the policy:

[First] to develop a true partnership for our schools with cafeterias; [second], we wanted to look at providing service to schools that don't have cafeterias, which would include breakfast programs; and [third] we have a [foods-related] course at a [city high school] and we wanted to incorporate that (District nutrition representative, KF, 1997, p.1).

Initially, departmental and district staff met to discuss the implementation of the policy, and as a result, decided to follow the departmental recommendation to stagger implementation. The committee encouraged individual schools to form their own nutrition committees and hired a dietitian from the province of Ontario, a food consultant with previous work experience in New Brunswick. Working with the consultant, the district developed a participatory approach to learn about the current situations in schools and about what changes people desired. The principal of school D2, a member of the district nutrition committee characterised the process as a "paradigm shift in food service, and as a result of it, we wanted to make sure we were making the right decision. So this is the reason we got staff people, principals, students, parents, and [the food-service companies] involved" (Principal, WT, 1997, p.16).

9.2.1 Information gathering

To learn about the situation in schools, the committee gathered information from a variety of sources during 1993-1994. For example, the committee surveyed cafeterias and found that the choices available to customers were limited. Either they could have the special of the day, “mystery meat and some old steamed vegetables and a lump of mashed potatoes” (District nutrition representative, KF, 1997, p.3) or french fries. Typically, teachers bought the special and students bought the french fries. The committee also learned that food services in schools without cafeterias were “floundering . . . it was something that was very haphazard. . . not anything that was organised and few schools had any breakfast programs or anything like that” (District nutrition representative, KF, 1997, p.1).

As well, the committee surveyed students, parents, student council representatives, teachers, and principals; and conducted focus groups with students and Home and School Association representatives who were worried about the implications of the policy for their fund-raising activities. They found that students were more likely to make healthy selections at home than at school because their options at home were limited to healthy foods. A key finding was that students “said they would make nutritional choices if they had nutritional choices available” (District nutrition representative, KF, 1997, p.6).

As part of the committee’s information gathering process, they visited an adjoining Francophone district that had implemented the policy more strictly and the district nutrition representative also contacted a school district in another province that was promoting healthy eating. During this time the committee also developed a three-year plan for the Department of Education (District D, 1993). Once all information was gathered and compiled, the District was prepared to take action and set September 1995 as the target for full implementation (NB Department of Education, 1994).

9.2.2 Planning and decision making

In deciding their approach to implementation, the committee recognised the unique nature of the policy and its implications for fund-raising and student choice. However, these did not become reasons to not implement the policy; instead they became reasons to make implementation a priority. The rationale of the district nutrition representative was that not only do schools have a responsibility to educate students; but this was a departmental policy and it was his job to implement it, just as he would be expected to implement other policies.

With regard to fund-raising, the District acknowledged that this was an issue for schools. Because the committee knew that schools depended on food sales for revenue, they “were very leery of reducing student government revenues” (District nutrition representative, KF, 1997, p.4) and tried to find an approach that would allow schools to maintain their revenue. A major step was to take the money that had previously gone into the District’s budget from the district catering company and disburse it among schools.

With regard to student choice, the district nutrition representative recognised that schools limit students’ choices in a variety of ways. Nevertheless, he commented that regarding foods in schools, “we did feel that kids needed choice” (District nutrition representative, KF, 1997, p.5). The committee decided to try to increase the number of appealing, nutritious foods that were offered while limiting, but not eliminating the non-nutritional items. They felt this reflected the philosophy of the new Canada’s Food Guide to Healthy Eating: “There are some foods that are better than others, but there are no such thing as bad foods” (District nutrition representative, KF, 1997, p.15). In making this decision, the district recognised that this approach did not fully correspond to the policy as written.

9.2.3 Implementing the plan

In order to implement the nutrition plan, the district wanted to partner with the catering company that serviced schools with cafeterias. The timing was fortunate because the information gathering was completed at approximately the same time the district catering contract was due to be renewed. The district used the results to prepare an extensive call for tenders that differed significantly from its predecessors (District D, 1995). “It was talking about options, about choices for kids and we wanted a response from the food-service companies . . . it was incredible” (District nutrition representative, KF, 1997, p.13).

As a result of the tendering process, the District switched companies. The District then partnered with the new food-service company to implement changes to improve the nutritional quality of foods available in cafeterias across the district. They increased the choices on the menu to include foods such as pita sandwiches, Mexican food, pizza, and submarine sandwiches. The availability of french fries was decreased from five days to two. Most schools agreed to let the food-service company manage their vending machines on a profit-sharing basis. “Potato chips, chocolate bars, and all that stuff are only available after school hours (District nutrition representative KF, 1997, p.5) because vending machines that carry these types of products operate on timers. Students could access machines carrying healthier items during the school day. The District worked to ensure that practices among different food services within the same school were consistent: “We can’t say to the [catering companies] ‘You guys can’t sell pop and french fries,’ and then turn around and be selling chips and pop out of some canteen. So that’s totally gone” (District nutrition representative, KF, 1997, p.8). The most controversial change was the District decision to limit the availability of soft drinks to after school hours for all grades. After older students argued that they were sufficiently mature to make their own decision, the District reversed its position for students in grades 9-12 only.

In schools without cafeterias, the District formed partnerships with various fast-food restaurants to supply daily lunches to the schools, featuring such foods as pizza, hamburgers, and submarine sandwiches. The arrangement allowed schools to make a profit from the programs. Some schools tried vegetarian pizzas but students preferred meat pizzas. In order to add variety, the pizza distributor also introduced lasagna and chicken. “People could argue, they’re getting a McDonald hamburger, how nutritional is that? They also get milk with it, so there’s a balance there. They don’t get McDonald’s hamburger every day. They get that once a week” (District nutrition representative, KF, 1997, p.7).

The District also addressed the access to food objective of the nutrition policy. The number of access programs increased significantly during policy implementation and milk sales “skyrocketed” (District nutrition representative, KF, 1997, p.7). “Everything’s in place for students in need, [the caterer or the fast-food restaurant] gives meals to kids that are in need, that’s part of the partnership” (District nutrition representative, KF, 1997, p.16). As well, almost all district schools now have breakfast programs. Many of the schools were eligible for funding from Nutrition Excellence and the District used the funds to exert some pressure on schools. To receive funding, not only did schools have to explain what they wanted and why, “[they] also had to be moving toward the implementation of this policy [by improving the nutritional quality of foods available] ” (District nutrition representative, KF, 1997, p.20).

Ongoing communication was an important component of the district’s implementation strategy. Throughout the process, the committee sent memos to schools to keep them informed of their actions, they wrote about nutrition in the district newsletter, and the district nutrition representative spoke at principals’ meetings and was interviewed by the local radio station.

9.2.4 Evaluating the outcomes

The district nutrition representative commented that the changes took a lot of time, but that for the most part, the reaction to them was positive. Cafeteria sales increased despite minor initial complaints from students. Cafeteria staff, who were concerned about the security of their jobs when they first heard about the changes, became very supportive. At one school, the surrounding community was concerned about student behaviour at lunch time and wanted the school to reverse the decision regarding french fry availability so students would stay at school. The District responded that the year before “french fries were readily available and the kids still trampled the trees and loitered in the streets (District nutrition representative, KF, 1997, p.4), so no changes were made. The stakeholder group that was most displeased with the changes were food companies whose sales were negatively affected. The district nutrition representative said he received faxes and phone calls from representatives from a number of companies who were upset that the district was limiting student choice.

9.2.5 Summary

After 1995, the district committee became inactive, as did school nutrition committees. The district nutrition representative felt that, for the most part, schools have maintained the changes, although he said a lot of the momentum for further change has been lost. With regard to the current status of the policy in District D, the district nutrition representative commented: “Now there’s no doubt, they all went gung ho and now that has died out, for two reasons. One, we implemented the policy, at least as far as we went, and two, the big push from the province has certainly died down” (District nutrition representative, KF, 1997, p.17).

The District recognised that it did not implement the policy fully as written. For example, schools are still permitted to sell chocolate bars as fundraisers and continue to offer some foods the policy states should not be available. District staff have not made further changes, however, because they

are waiting for further direction from the Department. If departmental direction were forthcoming, the district nutrition representative would like to address the second objective of the policy — nutrition education. He would like to “tie [nutrition] more into the curriculum and I know [the catering company] is willing to work with us on that” (District nutrition representative, KF, 1997, p.22). He feels teachers in grades 9-12 could play a much more active role in promoting healthy eating in schools.

One of the difficulties with the policy, noted by the district nutrition representative, was the inconsistency of implementation across the province. Student council representatives attending provincial meetings, for example, have reported that some other districts, “‘have pop and chips and all this, and here, we’re not allowed’. So I hope there is some consistency developed” (District nutrition representative, KF, 1997, p.8).

9.3 Introduction to the School Profiles in District D

The period of active policy implementation in District 2 was from 1992 to 1995. Thereafter, schools were expected to maintain the changes with minimal District involvement. The following profiles of a middle school and a high school are based on data collected during 1997-1998, and describe the process and outcomes of policy implementation.

The profile of each school is based on interviews with the principal, a teacher, and a parent; observational visits, and a participant-observation activity with at least one class in each school. The study design also included interviews with the cafeteria managers; the food-service company, however, refused to grant permission for the interviews. Instead, they proposed that the employees answer written questions pre-approved by the company. When the written questions were submitted, the company’s response was to ask for many clarifications. At that point, it appeared that further attempts to obtain information from the food-service managers would be futile, so efforts to interview them were discontinued. While managers were not interviewed, they were asked questions about food preparation methods during cafeteria

observations, and these responses are included. The company volunteered interviews with three of their provincial/national executives, an offer which was accepted.

9.4 Profile of School D1

D1 is a middle school, offering grades 6-8. It is located in a residential section of the urban area which comprises District D. The school houses 742 students and has a teaching staff of 39. Students have a half-hour lunch break and it is school policy that they are not allowed to leave school grounds during the day regardless of whether they walk to school or are bussed.

The school contains a cafeteria and one vending machine and runs an annual chocolate bar campaign to raise funds for the school. The cafeteria is open for lunch and operates with a staggered noon hour that serves one grade at a time for 30 minutes each. The cafeteria is run by the district caterer and features a daily special, a soup-of-the-day, and a fixed à la carte menu. Teachers supervise the cafeteria. A copy of the menu is sent home to parents, an action the parent who was interviewed said she appreciated. Her child ate in the cafeteria approximately four to five times per month and liked the chocolate milk and the french fries.

Although D1 implemented a number of changes as a result of the district's effort to implement the policy, the changes were made passively by the school's food-service employees with little involvement from the principal or other stakeholder groups. Figure 9.2 summarises key points related to policy implementation in D1.

Figure 9.2 Key Points in Policy Implementation at D1

Changes to school foods	<ul style="list-style-type: none"> • Some changes as mandated by the district (e.g., french fries available only two times per week) • Beverage machine put on a timer
Priority of nutrition	<ul style="list-style-type: none"> • Low; nutrition is just one more thing when the pressure is to increase math and literacy levels of students
Changes to organisational milieu	<ul style="list-style-type: none"> • No change; nutrition is part of the principal's building management responsibility not his role as the school's educational leader
Approach to implementation	<ul style="list-style-type: none"> • Little school involvement
Fund-raising	<ul style="list-style-type: none"> • Only changes made did not interfere with profits. • Beverage machine profits go to a staff fund and chocolate bar campaign profits go to the school
Student choice	<ul style="list-style-type: none"> • Students should have choice
Nutrition education	<ul style="list-style-type: none"> • No change as a result of the policy. • Nutrition taught in Home Economics courses. • No connection between classrooms and food services
Access to food	<ul style="list-style-type: none"> • No formal program; school will buy lunch if needed. • Breakfast program discontinued due to lack of student use

9.4.1 Changes to foods

The principal of D1 appeared to have a relatively limited knowledge of the history of implementation of the nutrition policy in his school. This may be because he only assumed his current position in 1996, after serving six years as vice-principal in the school. Nutrition is not a high priority for the school. The principal's view is that "by and large, people try to eat healthy" (Principal, CE, 1997, p.15), and he questions how much more effort could be spent on nutrition and still have the school meet its other obligations. He said there is a lot of pressure on teachers to increase mathematics and literacy levels of students, so nutrition would be "just one more thing" (p.15). At the same time, he noted that "we are an educational thing and what the kids learn here is going to affect their life and their attitudes. The only thing is sometimes people over-

rate what schools can do in terms of what the kids live at home” (p.18). The changes at the school in relation to the policy are summarised in Figure 9.2.

Figure 9.3 Summary of D1 Approach to Change

School caterer implemented changes as part of district policy. School had little involvement in the process
School organised breakfast program in which students were charged a minimal fee for breakfast. The program was discontinued due to poor attendance
School retained responsibility for the one school beverage machine containing juice and pop; timer restricted access to after school
School retained chocolate bar campaign as one of its two fund-raising campaigns

The principal was unsure whether the initiative for change came from the Department or the District:

... but I know the [school] board in this district started looking at running food services that were more in tune with a nutritional viewpoint and they instituted things, I think, on a progressive basis to the point that they finally cut off deep-fried french fries. And they worked their way through [various changes], and that kind of thing. Now what the progress was and how that was all done, I honestly do not know, but I do know that it was done in a thought-out, planned, nutritional [way] (Principal, CE, 1997, p.8).

The principal said that there was little parental involvement regarding decisions related to nutrition, an observation echoed by the parent who was interviewed. She was a member of the Home and School Association and had been involved with the school during the previous nine years during the time her three children went through the school. She said that if there had been a problem with school foods, the Association would have become involved. She also commented that she was “pleased to see there is a policy in effect” (Parent, DM, 1998, p.6). She said that while students might complain because they feel their rights are being infringed, she felt that underneath they are glad that “somebody is taking control of their nutrition” (Parent, DM, 1998, p.6).

In terms of the cafeteria menu, the principal saw the responsibility for food services resting less with the schools and more with the District, which negotiates the contract with the company. He viewed his involvement with school food services as more of a “building management kind of thing” than as part of his role as “an educational leader in the building” (Principal, CE, 1997, p.10). This role includes, for example, being asked by food-service staff to approve new food items for the cafeteria.

9.4.2 Foods available

Cafeteria observations were conducted in 1997 and 1998 and Table 9.1 shows the foods available and items purchased. Because there were two different locations where customers could purchase food, it was impossible to observe all purchases; so observations alternated between the two. As well, the pace of sales in this school and all others, precluded distinguishing between student and teacher customers for the most part, but the vast majority of customers were students. In D1, the average percentage of the student population who made a purchase was 39% (290/742). Both observations lasted for the complete 1.5 hour noon break. At D1, french fries and poutine (french fries, gravy and cheese curds) were available on Tuesdays and Thursdays only and garlic fingers were available on Mondays, Wednesdays, and Fridays only.

The observations did not always correspond with the principal’s comments. For example, the school still served deep-fried french fries two days per week, which was district policy. Contrary to the policy, however, both times the beverage machine was observed (during school hours), it was possible to purchase a soft drink.

Table 9.1 Foods Available and Purchased at D1

Food Item	1997 (Sept 23) 248 customers	1998 (May 15) 333 customers
1. Chocolate milk ✓	105	135
2. White milk ✓	14	21
3. Fountain/ drink (slushy)	15	24
4. Juice ✓	2	5
5. Water ✓	0	4
6. Special*	8 (3 teachers)	9 (6 teachers)
7. Pizza (pepperoni/bacon)	31	27
8. Poutine	51	not available
9. French fries	79	not available
10. Home fries	not available	55
11. Chicken nuggets	24	25
12. Garlic fingers	not available	52
13. Chicken burger	3	0
14. Submarine sandwich ✓	5	7
15. Tossed salad ✓	1	1
16. Tuna salad ✓	1	0
17. Hamburger/cheeseburger ✓	2	0
18. Cheese sticks ✓	8	1
19. Bread pretzel ✓	0	2
20. Soup** ✓	3	1
21. Sandwich ✓	6	1
22. Sandwich plate ✓	1	0
23. Vegetables and dip ✓	1	1
24. Hotdog	5	3
25. Nachos and cheese sauce	4	5
26. Apple pie	6	4

Food Item	1997 (Sept 23) 248 customers	1998 (May 15) 333 customers
27. Jell-o	0	1
28. Pudding ✓	4	1
29. Cookie	13	62
30. Other sweets (e.g., pastry)	14	34
31. Muffin	1	0
32. Lower-fat salty snacks	7	9
33. Full-fat salty snack	2	19
34. Frozen yoghurt ✓	6	not available
35. Ice cream ✓	3	1
36. Breath mints/cough drops	1	5
37. Oranges (poor quality) ✓	0	0
38. Apples ✓	0	0
39. Low-fat salty snack	0	0
40. Fish ‘n chips	0	0
41. Ritzbits (crackers)	0	0
Total Items	426	515

- * Special 1997: oven-baked fish burger with cheese, home fries (combination baked and deep fried), coleslaw, and milk or juice. Special 1998: egg roll, chicken fried rice, stir fry vegetables, milk or juice.
- ** Soup 1997: harvest vegetable; soup 1998: cream of broccoli

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools

Although the featured meal special was intended to be a healthy option, they were not on these two days. For example, both the fish burger and egg roll would have been deep-fried by their manufacturer. The cafeteria manager also added extra fat during preparation. For example, whenever she prepared home fries, an item that was intended to be baked, she reported that she deep-fried them for the last half of the cooking period on days when the deep fryer

was used to cook french fries. If home fries were on the menu on a day that the fryer was not in use, she added butter during baking. She said that she made these adjustments so the students would eat the food (Field note, September 23, 1997).

An analysis of the menu revealed that of the 41 food items that were available either in 1997 or 1998, or in both years, 46% (19) conformed to the policy as written. The other foods were either deep fried, or high in fat, salt, or sugar. An analysis of the actual purchases made by customers during a total of two observations revealed that of the 941 purchases that were made during the two observations, 36% (340) of the purchases were “policy acceptable”. Sales of chocolate milk contributed 72% (26/36) of these sales and the other 18 items together contributed the remaining 28% (10/36). Although a significant number of foods did not follow the policy as written (e.g., chicken nuggets, which were deep fried, and nachos and cheese, which were high in fat and sodium) only the availability of full-fat snacks directly contravened the agreement between the catering company and the district.

The district nutrition representative had commented that prior to implementation, teachers seemed to eat the meal specials and students seemed to eat the other foods. As Table 9.1 indicates, the teachers were still most likely to purchase meals; 9 of the 17 sold were to teachers.

The cafeteria was decorated with a number of posters. In 1997, for example, one poster promoted “Raw Power -- do yourself a favour -- eat fresh,” while another stated “Healthier Eating for Today’s Lifestyle,” and a third provided a nutrient analysis of some of the company’s menu items, stating “We are committed to providing healthier choices.” A fourth poster announced that students could enter a contest to win a backpack from a potato chip company!

In order to buy salads, soup, sandwiches, and other healthier choices, the customers had to move along a different line than if they were purchasing items such as garlic fingers, the meal special, or french fries. The fruit was

displayed near the cash register in an unrefrigerated area. It did not look appealing on either visit.

The other food service offered by D1 was a beverage machine located near the gymnasium. In 1997, it contained three fruit-flavoured drinks, two types of soft drinks, and one type of juice; and in 1998, it contained three types of soft drinks, three sports drinks, two fruit-flavoured drinks, and water (but no juice).

Unlike most schools in the district, the school, not the food-service company, operated the machine. The principal said students were not given access partly because of the district's contract with the food-service company and partly because the school does not feel it is appropriate for the students. The purpose of the machine is largely to offer a service to public groups that rent the school for community activities.

9.4.3 Fund-raising

The school raised funds through food sales by operating a beverage machine and by running a chocolate bar campaign. The revenue generated by the beverage machine went to a staff fund that the principal used to provide extras for teachers, such as muffins at staff meetings.

The school continues to run an annual chocolate bar campaign in the community. Although the principal notes that "chocolate bars may not be promoting the best thing" (Principal, CE, 1997, p.4), he found that they were the simplest campaign compared with spices, candles, or other items. Revenue from the chocolate bar campaign supported school activities.

9.4.4 Student choice

Insights into the principal's views on choice can be gained from his comments on the decision of what items to place in the school's beverage machine. He said he considered a number of factors; and noting people's concern for what is politically correct, he reported that he asks the following questions:

- What will sell, in terms of making a profit?

- What is appropriate (i.e., beer would be inappropriate)?
- What does the community want?
- What is nutritional?

He said that he looks at all aspects, but. . .

. . . would not turn around and say “I’m not going to put pop in my machine in the building” because I think there is a market there and I think people have the right to make that choice, but I think I have an obligation not to just stuff it full of a whole bunch of soda pop. [I have to] make sure there is other juices and things there (Principal, CE, 1997, p.11).

9.4.5 Nutrition education

The principal said that nutrition was covered mainly in the Home Economics curriculum, a subject that all students take. In Home Economics, students learn about Canada’s Food Guide. He was unsure how much nutrition was included in the health curriculum, although he noted there were major curriculum changes underway so it was unclear what might happen with nutrition in future.

The principal reported that the cafeteria does nutrition promotions but did not think that classroom teachers were partnering with the cafeteria. The physical education teacher who was interviewed mentioned that nutrition was something he discussed as a coach, but that he did not cover the subject in his classes. He noted that more teachers were making healthier food choices to help them cope with the increased stress associated with their profession.

9.4.6 Access to food for students

D1 has no formal access to food program for students but “have always tried to quietly pass a little money to kids that need some money for lunches” (Principal, CE, 1997, p.13). The principal said the need was rare in the past, but that this year there were two students who required assistance and he was unsure where to get the money. One student had been identified by a teacher and the second by the guidance counsellor.

The school had increased student access to food by organising a breakfast program two or three years ago. The principal thought that the idea might have originated jointly with the food-service company and the former principal. The cafeteria was open in the morning and hot food was available for a minimal charge, but “it just was not used” (Principal, CE, 1997, p.2) so it was discontinued.

9.4.7 Response to change and plans for the future

Overall, the principal felt that the nutrition changes had resulted in a “higher level of consciousness regarding nutrition” (Principal, CE, 1997, p.8). He was very pleased with the service provided by cafeteria staff. He felt that lunches were a “crowded and rushed affair” (Principal, CE, 1997, p.14), but that what bothered him the most was “apples, oranges, . . . the amount of food that is thrown out here is absolutely horrendous. I’m sure the parents have no idea” (Principal, CE, 1997, p.14). He said that the school has not tried to address the problem.

The teacher said that he thought there was a greater variety of food available in the school cafeteria, but that it “is probably offering too much of what I would call junk, as in fries and all the grease and that sort of thing. . . . Right now they are promoting basically what the students want to eat and what the student would rather eat if given the choice at this stage” (Teacher, PS, 1998, p.2). He would like to see the school do more to promote healthy eating: “There is a place for the school to try to be a role model for the kind of lifestyle we would like the students to pursue once they get out of school [although parents have to assume responsibility as well]” (p.7). Such a change would involve an “education of the students, parents, and the community. It would have to be something done gradually over time” (Teacher, PS, 1998, p.2).

The parent’s comments on the changes to the cafeteria were that it had more salad items available and that the foods did not appear to be as greasy or as heavy. She said she expected the school to meet high nutritional standards. She felt strongly that schools and homes each have their roles: “Schools are

there to educate. They are not there to feed kids” (Parent, DM, 1998, p.7). Although she said she understood the relationship between nutrition and learning she did not think breakfast programs should be funded by the government.

Twenty-four students in a grade 7 class assessed the foods offered by the school, role-playing as nutrition experts. They were divided into six groups and asked to discuss the foods that were in the cafeteria and the vending machine during the September 1997 observation. All six groups mentioned that the menu did not encourage healthy eating because too many items were “fatty” or “full of grease.” Three of the six groups felt that some aspects of the menu encouraged healthy eating, because for example, it offered “salads, fruit, soup, etc.”

Suggestions for improvement included: remove the grease before serving the food, have better quality fruit, offer a fruit bar, and have more healthy specials. Ideas for projects for students that were related to school food services included: “Find out the number of calories and fat that are in some of the foods in the cafeteria and tell the school”; and “make ‘eat fruit’ posters.” One group commented that they had no suggestions “because no one would listen to us.”

After the role-play activity, the 24 students completed individual surveys (see Appendix E). In the class, 21 (88%) students tended to “buy something else” rather than the “meal on special.” Students were asked to list their four favourite choices; the top five are indicated in Table 9.2.

Table 9.2 Favourite Cafeteria Foods at D1

Food Item	Number mentioning food (n=24)
Pizza	17
Slushies (fountain drink with ice)	13
Chocolate milk	13
French fries	10
Poutine (french fries, gravy, & cheese)	5

Only four of the 23 foods mentioned by students as favourites would be on the menu if the nutrition policy were strictly followed: chocolate milk (chosen by 13 students), juice (3), soup (1), and white milk (1). When french fries were available, two days per week, five students responded that they usually purchased them, 12 responded sometimes, two responded seldom, and five said never.

Twenty-two students provided additional comments about the food. Fourteen (64%) felt the cafeteria food was too greasy or fattening, although four of the fourteen also made positive comments. One student wrote “I find that the food in the cafeteria is really good! But the only PROBLEM is that it’s not very good for your health.” Others commented that the current menu should stay, but healthier foods could be added and could be better marketed by putting them in a popular location. Eight students (36%) made a positive comment about the food, such as liking a particular food item.

When students were asked if they thought the school should have a breakfast program, 13 (54%) thought they should because: it would help students who did not have time to eat at home (7), it would contribute to student health (2), and it would help those who did not have the money (1). Seven (29%) did not think it would be a good idea because: students would have to arrive at school earlier (3) and “because they would probably give you something that would not be healthy to give you a good boost to start your morning” (1). Four students (17%) were either undecided or saw both advantages and disadvantages to having a program. When asked an optional question about whether they had eaten before class on the day of the survey, 17 (74%) students answered “yes.”

9.4.8 Summary of school D1

Overall, the stakeholder groups at D1 appeared to be generally satisfied with the status quo regarding their food services, nutrition education, and access to food programs. Those who expressed some dissatisfaction gave no indication that they were likely to take action to change the situation.

9.5 Profile of School D2

D2 is a high school located in the centre of the city just off a main thoroughfare. It houses 1,294 students in grades 9-12, and has a teaching staff of 62. About 75% of the students travel by bus to school, which is situated near both residential and commercial areas. In contrast to the other schools in this case study, D2 has “every fast food outlet in the country within five minutes of the school” (Principal, WT, 1997, p.2). Students are free to leave the school during the lunch. As indicated in Figure 9.4, D2 actively participated in implementing the Food and Nutrition Policy for New Brunswick Schools.

Figure 9.4 Key Points in Policy Implementation at D2

Changes to school foods	<ul style="list-style-type: none"> • Significant changes made in accordance with District policy (e.g., french fries available only two times per week, beverage and snack machines put on timers, expanded menu of healthier options in cafeteria and in vending machines)
Priority of nutrition	<ul style="list-style-type: none"> • High; the changes were considered important and the school wanted to be a trend-setter
Changes to organisational milieu	<ul style="list-style-type: none"> • Closer partnership between the principal and the cafeteria
Approach to implementation	<ul style="list-style-type: none"> • Participatory • Principal took the lead, conducted school focus groups, worked on changes with cafeteria staff
Fund-raising	<ul style="list-style-type: none"> • Used extra funds from district to offset revenue losses from decreased food sales
Student choice	<ul style="list-style-type: none"> • Students should have choices, especially students in grades 9-12
Nutrition education	<ul style="list-style-type: none"> • Nutrition taught in Physical Education, Career and Life Management, and Family Living courses. • Some connections between classrooms and food-services
Access to food	<ul style="list-style-type: none"> • No formal program but students can work in the cafeteria for food. • Breakfast program is in the planning stage

9.5.1 Changes to foods

D2 followed the district's lead in implementing the policy. The principal, who was a member of the District Nutrition Committee, worked very closely with the catering company and the District throughout the process and was able to achieve a number of changes. According to the physical education teacher who was interviewed, "[the principal] thought [the change] was very important and he figured that if the policy was going to come in we may as well be trend setters and show that it would work" (Teacher, JV, 1997, p.2).

The principal described his approach as pro-active. He thought that good food helps people function better, and if they feel better, "then they are more comfortable with the learning process" (Principal, WT, 1997, p.22). The principal thought it was appropriate for schools to promote healthy eating because he defined the role of schools broadly and believed that teachers should see their role as one of a parent away from home. The teacher felt diet and exercise were the two most important components of health.

Despite the principal's support for nutrition, he commented, "That policy created more headaches and more hardships than you could imagine because number one, our geographic location; and number two, here they are now trying to dictate to us what we are going to eat" (Principal, WT, 1997, p.14). The school felt the department's approach to the policy was "dictatorial" (p.17) and as a result, "we had a revolt on our hands from students and staff" (p.17) because they felt that, by taking away food, the policy was taking away their ability to make choices. Nevertheless, the school did act to implement the policy, as shown in Figure 9.5.

The school participated in the district focus groups and then held its own focus group with teachers and students. "I have found that to be the most positive experience of anything we have ever done" (Principal, WT, 1997, p.13). Although the school wanted to implement the policy, "we felt very strongly that there were parts of the policy that we could not adhere to" (p.14).

Figure 9.5 Summary of D2 Approach to Change

Principal became member of the district nutrition committee
School participated in district focus group
School organised school focus group
Principal spearheaded changes recommended by the district. Principal established closer relationship with new caterer than with previous caterer. Caterer renovated school cafeteria, altered cafeteria menu
Caterer assumed responsibility for the vending machines, placed timers on machines with soft drinks, chips, chocolate bars, and had separate machines for juice and nutritious foods
School followed the district change to allow students in grades 9-12 all-day access to soft drinks

The changes began in the cafeteria. The new district caterer tried to enhance the eating experience by completely renovating the cafeteria and offering food at kiosks; and students from the art department painted two large murals on the wall. The changes were well-received. One important organisational change was that the principal established a closer relationship with the cafeteria employees. He had nothing to do with the staff of the former company, but with the new company, he had a “fair amount of input” (Principal WT, 1997, p.13). Under the new arrangement, he felt that he could discuss problems and give compliments as appropriate. He made a point of visiting the cafeteria daily, regardless of whether he purchased food.

One of the controversial district changes was to eliminate the selling of soft drinks during school hours. As a result, D2 lost revenue, students left the building to buy soft drinks nearby, and staff were unhappy. After “serious consideration, [and recognising that] we are dealing with teenagers at the upper age of the bracket” (Principal, WT, 1997, p.1), the district decided to give the students a choice of juice, water, or soft drinks. When the principal announced the district decision, “you would think that I had won the lotto as far as the staff were concerned” (p.17).

The principal felt that in making the changes, the school tried to “strike the balance between healthy food choices and other food choices” (Principal, WT, 1997, p.14). To do so, they altered the menu and controlled the frequency with which some foods were offered. For example, the sale of french fries was limited to two days a week, whereas pizza, a submarine sandwich bar and salads were made available every day. The new company was very willing to try new ideas on a trial basis. For example, their bagel program was relatively successful, although their donair (kebab) program was not. The principal hoped the company could establish a salad bar, but the facilities did not permit it. He said it was “amazing” (p.15) how many students chose whole wheat breads once they became available.

When the principal reflected on the changes and the process, he commented, “I guess I can honestly say that common sense prevailed” (Principal, WT, 1997, p.16). The physical education teacher commented,

A lot of kids that were here last year loved the new cafeteria because they had more choices and I didn’t think it was that big a thing to implement actually. At first, in talking about it, I think there were more barriers, but when it actually was in place, it didn’t seem to be a big deal (Teacher, JV, 1997, p.11).

9.5.2 Foods available

Cafeteria observations were conducted in 1997 and 1998 and Table 9.3 shows the foods available and items purchased by students and teachers. Just as with D1, there were two different locations where students could purchase food, so observations were alternated between the two at each visit. Both observations lasted for the lunch break. Like D1, school D2 followed district guidelines and made french fries available twice per week, did not sell soft drinks, chocolate bars, or potato chips. The percentage of customers who purchased items at the cafeteria was 13% (163/1294).

Of the 31 items available in 1997 and 1998, 42% (13) conformed to the policy as written. Of the 526 items purchased, 43% (224) of the items were “policy acceptable”. Sales of chocolate milk contributed 65% (28/43) to these sales and the 12 other items contributed the remaining 35% (15/43).

Table 9.3 Foods Available and Purchased at D2

Food Item	1997 (Sept 5) 99 customers	1998 (May 14) 228 customers
1. Chocolate milk ✓	49	100
2. White milk ✓	11	12
3. Fountain drink/slushy	5	37
4. Water ✓	1	3
5. Juice ✓	0	2
6. Garlic fingers	16	45
7. Pizza (pepperoni & bacon)	12	16
8. Poutine	10	28
9. Special* ✓	7	9 (3 teachers)
10. French fries	6	18
11. Submarine sandwich ✓	5	8
12. Sandwich ✓	5	11
13. Nachos	2	9
14. Cold plate ✓	1	0
15. Chef salad/tossed salad ✓	0	3
16. Bread pretzel ✓	0	4
17. Coleslaw ✓	0	1
18. Tortilla wrap (rice, cheese, tomato, pepperoni) †	0	4
19. Chocolate chip cookie	13	41
20. Pastry/sweet	5	not available
21. Muffin	2	1
22. Apple pie	1	not available
23. Salty snacks (reduced fat)	2	6
24. Salty snacks (full fat)	0	8
25. Apple ✓	0	1
26. Candy	0	4

Food Item	1997 (Sept 5) 99 customers	1998 (May 14) 228 customers
27. Chewing gum	0	1
28. Jell-O	0	1
29. Cough drops	0	0
30. Salty snacks (low fat)	0	0
31. Frozen yoghurt ✓	0	0
Total Items	153	373

* Special 1997: Mexican rice, chicken fajita, nachos, and cheese/salsa
Special 1998: Meat loaf, baked potato, peas, and milk

† Hot meal deal 1998: Pizza wrap with drink

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools

Other than the two large murals painted by the students, the cafeteria had little decoration. In the school hallways in 1998, a fund-raiser for the graduation class announced, “Grease is the Word.” This event was being sponsored by three fast-food companies. The cafeteria was organised so that students could easily access any food whether “policy acceptable” or not. As a result of the cafeteria renovations, all food was presented and displayed attractively.

As mentioned, D2 was located near a large number of fast food outlets. During one of the visits to two of the D2 classes, students identified a total of 13 outlets within easy walking distance. Five of the 26 grade 9 students (19%) said they were regular customers at the outlets, and 10 of the 19 grade 11 students (53%) said they were regular customers. The favourite outlet was McDonald’s (Field note, October 29, 1997).

D2 had six vending machines for students located in a central area near the gymnasium. The machines carried the following statement: “Nutrition Policies: The nutrition policy in School District 2 restricts the sale of carbonated beverages, potato chips, and chocolate bars etc., during school

hours. As a result certain items in this machine are not available between 6:00 am and 3:00 pm, Monday through Friday” (Field note, September 4, 1997). However, because this was a high school, the soft drinks were available. Table 9.4 shows that, in 1997, five machines contained an assortment of 42 beverages. Of the 42 items available, 17 % (7) were acceptable to according to the policy as written. In 1998, four machines contained 37 beverages of which 16% (6) were acceptable.

Table 9.4 Vended Beverages at D2

Beverage	1997 Number of items available (n=42)	1998 Number of items available (n=37)
Soft drinks	15	15
Other drinks	11	11
Sports drinks	5	5
Juice ✓	5	4
Water ✓	2	2
Hot drinks (coffee, hot chocolate)	4	0

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools.

The other machine contained food items, as shown in Table 9.5. A very small percentage of the items met the policy guidelines in 1997, 2%, and in 1998, 5%. According to the district directive, foods such as the full-fat chips and the chocolate bars were to be placed in rows governed by a timer. In practice, the classification system was not always clear as some full-fat salty snacks were in the same row as reduced-fat salty snacks.

9.5.3 Fund-raising

D2 now makes more money from food sales than it did under the prior system. Prior to the policy being implemented, the school operated the vending machines and took all the revenue from them. Now the catering company

operates the vending machines and splits the profits with the school. Although this has meant a decline in the revenue that comes from vending, the total

Table 9.5 Vended Food Items at D2

Food Item	1997 Number of items available (n=42)	1998 Number of items available (n=59)
Full-fat salty snacks	7	18
Reduced-fat salty snacks	6	8
Low-fat salty snacks	1	0
Chocolate bars	0	16
Candy	1	8
Gum/cough drops/mints	0	6
Granola bars ✓	0	3

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools.

revenue is larger because the school now receives a portion of the commission that the catering company formerly paid to the District.

9.5.4 Student choice

Student choice was a big issue for D2. The principal thinks that students in grades 9-12, who are 15 to 18 years of age, should have a choice. Even at the elementary level, he believes there should be some flexibility so students can start making healthy choices. At the middle school level, he thinks students should also be given some choice, “but don’t have french fries available five days a week because they will buy it” (Principal, WT, p.15, 1997).

9.5.5 Nutrition education

Nutrition was taught as part of the Physical Education, Career and Life Management, and Family Living courses in D2. As well, student athletes receive an annual presentation from a Dietitian from the Milk Marketing Board about nutrition and athletics. “We have a very strong physical education department here and they promote healthy food and healthy eating and a healthy lifestyle” (Principal, WT, p.3, 1997).

Students in grade 10 Physical Education take one unit on nutrition. The students first learn about body image and body fatness and then nutrition. Nutrition covers “Canada’s Food Guide, what each part of the [guide] is for, what carbohydrates, proteins, and fats do for the body, why we need all of them along with our water, and then a little bit on vitamins and minerals” (Teacher, JV, 1997, p.13). The teacher considers it important that students see her as a good role model: “I live what I do. If I am going to say something and do something else, I think I’m being very hypocritical. I think [it is important for] the kids to see me eating good foods, and see the energy that I have, and see me being happy” (Teacher, JV, 1997, p.3). The teacher, whose background was in physical education, also coaches school teams and reminds her players of the importance of eating well. She finds that students are quite aware of nutrition.

D2 made more connections between school food services and classrooms than any other school that was profiled, but these connections were still limited. The connections consisted of celebrating nutrition week and asking the cafeteria to serve a variety of ethnic foods during multi-cultural week. Even though current connections are limited, the principal sees opportunities for the future. For example, he suggested that students could learn about the nutritional value of foods at nearby restaurants and compare them with the cafeteria foods. “What you can do is really deliver something in a positive way by relating it to something that all the students are familiar with” (Principal, WT, 1997, p.21).

9.5.6 Access to food for students

D2 had no formal program that allowed students to access food at D2 and the school did not make any changes to alter student access to food as a result of the policy. Students with limited financial resources were allowed to work in the cafeteria in exchange for food. The principal said some teachers kept food in their classrooms or occasionally bought groceries for students.

The school would like to develop a universally-available breakfast program. The principal reported that a growing number of students do not live at home and was concerned about their food intake. He planned to use a room in the school as a morning drop-in centre where food would be available. The principal wanted to ensure there was no stigma attached to participating. Students would operate the program, “kids helping kids” (Principal, WT, 1997, p.7), and the menu would be simple. The school parent advisory council supported the idea and was assisting with its organisation.

9.5.7 Response to change and plans for the future

The principal said that initially the changes prompted some complaints from students; but “the more you educate them, the more willing they are to accept what is available” (Principal, WT, 1997, p.1). One complete cycle of students had passed through the school since the changes occurred. The principal pointed out that new students did not know any better and raised few questions.

The response to the changes in the cafeteria had been very positive for the most part. The principal observed that many more students were using the cafeteria. In comparison to ten years ago, “we have made giant strides. Before, the greasier the better. We still have to offer ‘grease’, but it’s controlled, very much controlled in comparison to what we used to be. If we didn’t offer it, [the students would] go across the street” (Principal, WT, 1997, p.10). He said that sometimes the company uses too much mayonnaise as a filler and the “nutritional value sometimes disappears” (p.10). The principal thought that meal specials were reasonably priced, but found some of the à la carte items

expensive. The principal also commented on the popularity of water in the beverage machines. He said many students complained when the machine containing the water broke. He thought that students were eating healthier foods at home and that this was carrying over to the school.

The teacher said she had seen a number of changes during her time at the school, but “the most recent ones have definitely been the best. Where we used to see a lot of fries offered at lunch time, we are not seeing as many [now], and the kids aren’t looking for it like they used to” (Teacher, JV, 1997, p.5). She said she was pleased to see more choices in the vending machines, although she thought that having the timers on the vending machines was “a little militaristic” (Teacher, JV, 1997, p.6) because the school was making the choice for the students.

The parent who was interviewed was active in student affairs but knew little about the school food services and how they operated. Her older son had eaten the special of the day when he attended the school earlier; but her daughter, then in grade 11, was sick of cafeteria food and preferred to bring lunches from home. She said that her daughter and her daughter’s friends, who were student athletes, were very nutrition conscious, especially regarding the fat content of food.

Forty-five students in three physical education classes assessed the foods available in the cafeteria and in the vending machines, role-playing as nutrition experts. Students were divided into eleven groups. Six of these groups thought the cafeteria did promote healthy eating and offered more healthy food than unhealthy food. Another three groups thought the cafeteria did not promote healthy eating, either because the foods were unhealthy or the items that were popular, such as garlic fingers, were high in fat. One group noted that “greasy foods taste better. If it tastes bad, people feel like they wasted their money.” This group, however, recommended that the cafeteria sell less greasy food.

Suggested improvements for the cafeteria and possible school activities were to: lower the price of healthier foods, add a salad bar, ask students for

their opinion on how the food program could be improved, make posters announcing nutritious food, bake the french fries instead of frying them, conduct surveys and do projects to see how healthy the food is, have school-based potluck suppers, sell more pasta, encourage the consumption of fruit in classes, offer prizes for the consumption of healthy food, have a school assembly on nutrition, and survey students' current consumption.

All the groups agreed that the foods in the vending machine did not promote healthy eating, although responses varied in degree. One group mentioned, for example, that soft drinks contain too much caffeine, sugar, and artificial flavouring; whereas another stated, "The vending machines only sell chocolate bars after 3:00 pm so that's a help toward healthier eating." Several groups suggested foods that could be added to the vending machines, including: cheese and crackers, butter-less popcorn, rice cakes, lower fat cookies, dried fruit snacks, trail mix (nuts and raisins), and sunflower seeds.

Eight groups responded to the question about a breakfast program in school and all supported it. They thought it would be helpful for students who were rushed in the morning, would help students do better in school through providing "brain food," or might encourage students to eat healthier food rather than buying cookies in the cafeteria.

Students thought that parents, teachers, and athletic students would be the most likely to support school changes to promote healthy eating. They also thought that since "unhealthy eaters, fast-food eaters, are most of the student body," that the changes would not get widespread student support.

Data from the 45 students, obtained through surveys they completed after the role play (see Appendix E), indicated that 67% (30) bought food at the cafeteria at lunch time. Their favourite choice, as indicated in Table 9.6, was submarine sandwiches, which the catering company "made to order" using sandwich rolls baked on the premises. Most of the students, 91% (41), used the vending machines in the school. Soft drinks were by far the most popular choice, followed by salty snacks, and candy. A relatively small number of students, 22% (n= 10), purchased foods from the cafeteria in the morning,

compared with lunch. Milk, pastries, and cookies were their favourite choices. Seventeen (38%) of the students had not eaten before school on the morning of the survey.

Table 9.6 Favourite Cafeteria Foods at D2

Food Item	Number of Students Identifying it as a Favourite (n=30)
Submarine sandwiches	25
Pizza	24
Garlic fingers	16
French fries	15
Poutine	13

Of the 24 students who provided additional comments, six mentioned that cafeteria food prices should be lower, especially the price of healthier foods; four mentioned that they would like the school to have a breakfast program; and 13 made a comment about health. One student wrote, for example, “The healthy food they have looks awful and costs more money. Maybe if they got foods that we want to eat (pasta) and didn’t charge so much.” In connection with health, several students mentioned that they should receive more nutrition education, while another commented: “Our school has many good foods and some bad, so everyone has a selection.”

9.5.8 Summary of school D2

Although the initial reaction by D2 to the Department’s approach to policy implementation was negative, the school decided to be pro-active and worked together to implement a policy that they felt was appropriate for their situation. The school community was involved in the change process and the overall reaction to the process and the changes achieved by the school was positive.

9.6 Discussion of District D and Schools D1 and D2

District D used a participatory approach to gather information about the current situation in the district before formulating an implementation plan. Through this action, they learned about pre-existing levels of stakeholder capacity and will to implement the policy. Their work informed them that fund-raising and choice were issues for schools and they took steps to address each. Their responses reflected the concerns expressed by the schools rather than the departmental position.

Based on the results of its information gathering activities and using the new *Canada's Food Guide* as a rationale, the district addressed two of the policy objectives. The nutritional quality of foods available in schools was changed by expanding the number of healthier food items available in cafeterias and vending machines and decreasing the availability of less healthy foods. Student access to food was increased by implementing the provincial milk program, increasing the number of breakfast programs, and partnering with catering companies to improve student access to food at lunch. These objectives reflected the priorities of the Department. The District, like the Department, did not address the policy objective of nutrition education.

The District demonstrated that nutrition was a priority through its approach to information gathering, ongoing communication with stakeholders, and the formation of partnerships with the catering company. Consequently, those at the school level did not seem to question why they were being asked to change.

The District helped to create the capacity for schools to change largely by providing support. For example, clear directions were given about the type of change expected and funding was provided through the Excellence in Nutrition monies. Pressure was exerted on schools by tying the disbursement of funds to improvements in the nutritional quality of foods in schools. The District helped to foster willingness to change through using a participatory approach. People were better able to understand the reasons for change because they had been part of the process. This approach also helped

stakeholders, with the exception of certain food companies, feel positive about the process, rather than feel they were losing something. The District indicated responsiveness to the schools by showing some flexibility when it compromised on the availability of soft drinks.

The District did not use a monitoring system to determine if schools maintained the changes. The school results indicate that this might have been helpful since it was unclear if there was enough intrinsic motivation to continue the changes; the perceived benefits might not be sufficient to sustain change in the face of other pressures.

The two schools profiled both made changes although D2 did so to a greater extent than D1. D1 changed some of the foods that were available in the school under the direction of the District, but it does not appear that anyone at the school level was continuing to monitor the situation to ensure that the changes were maintained. The food-service staff, by their actions, seemed to have a limited awareness of the District's efforts to promote healthy eating and of their role in contributing to that goal. These conditions existed at D1 because nutrition was a low priority for the principal and other stakeholder groups within the school. The principal viewed nutrition as more of a district responsibility, and he and others appeared content to allow the school food services to operate quite independently. The school continued to sell chocolate bars and soft drinks were available in the beverage machines; fund-raising pressures and choice were part of the rationale for these decisions. Nutrition education was restricted to a classroom subject and there appeared to have been little support for a breakfast program.

D2 made nutrition a priority and worked with the district using a participatory approach to change. Although the school did not fully implement the policy as written, they did make significant changes. Fund-raising and choice were factors in implementation. The school actually increased its revenue from the sale of food. Regarding choice, the school supported the philosophy of the district — that students should be allowed to make some choices. The organisational milieu of the school changed to accommodate

implementation. School food services became more integral to the principal's responsibility. The reaction to the process of change was positive and many of the changes have been maintained, despite the current inactivity at the departmental and district levels. Although the policy had little impact on nutrition education activities of the school, the potential for action was evident.

Chapter 10

Local Variability:

Nutrition Policy Profiles of Selected Districts and Schools — District F

10.1 Policy Implementation in District F

This chapter continues the examination of local variability by profiling the approach to implementation in District F and in four schools within that district. District F includes the largest city in New Brunswick and is the largest school district. It serves 14,725 students distributed among 43 schools: 5 high schools, 6 middle schools, 9 K-8 schools, and 23 elementary schools (K-6) (NB Department of Education, 1999a). The district has made two attempts to implement the Food and Nutrition Policy for New Brunswick Schools. The first began after the policy was announced in 1991 and was generally unsuccessful; the second began in 1997 and is still underway.

10.1.1 The first attempt at implementation

The initial attempt at policy implementation was led by the district nutrition representative who was the Kindergarten and Home Economics Coordinator for the District. In order to begin the implementation process, she formed a District Nutrition Committee consisting of a public health nutritionist from the Department of Health and Community Services, a parent, two students, and a principal or vice-principal from each level of the school system (elementary, middle, and high school). The committee attempted to use a top-down approach to implementation, similar to the approach recommended by the Department of Education. The committee developed a three-year implementation plan for the district (District F, no date) and then sought approval for the plan from the superintendent and the school board. While the superintendent was very supportive, the school board was not:

The first year, everybody was to make milk available in the schools and we put milk coolers in all the schools. Well, they were told they were all to have milk available. The second year we said that they were to add one nutritious food and they were to, I think, limit the sale of potato chips in their schools to a maximum of two days per week. They were

not to sell french fries for instance in the high school unless it was part of a full course meal. [The students] couldn't just go in and get gravy and [fries]. So that part was implemented but it never did go through the three year plan. And the third year of course was that everything be eliminated that wasn't nutritious in schools. We had a school board then and we couldn't get full approval from all the members to put that into a three year plan (Retired district nutrition representative, SM, 1997, p.3).

During the phase of active implementation, the district nutrition representative used various strategies to encourage implementation. Her actions reflected her personal commitment to nutrition. She thought that it was important for "schools to provide nutritious foods and nutrition information to make up for the problems associated with unhealthy lifestyles and the lack of proper food served in homes" (p.4). Consequently, she tried to work with schools and asked each school to appoint a nutrition contact person, either the principal or a teacher. She also tried to implement the district plan by: attending principals' meetings and providing them with information, presenting the policy at several parent-teacher nights at schools, suggesting healthy food alternatives for schools, coordinating the milk program, monitoring the implementation of the policy as required by the district, and overseeing the disbursement of the Excellence in Nutrition funds.

While the efforts of the district nutrition representative and the committee allowed them to reach the goals they set for the first year — to establish milk programs — their approach was less successful in subsequent years. During the second year, the committee got "bogged down" (District nutrition committee member, MU, 1997, p.10) due to school concerns. Schools did not want to lose revenue because of the policy and they disagreed with plans by the District to limit the availability of certain foods, like french fries. The third year of the plan was never implemented; the committee gradually became less active until it ceased to operate in 1995.

Throughout the implementation process, the position of the district nutrition representative on fund-raising and choice reflected departmental views rather than the concerns of schools. She felt that schools should find other ways to raise funds for sports and school trips, even though the

alternatives might not be “nearly as easy as the bag of chips, or the candy bar, or pop” (Former district nutrition representative, SM, 1997, p.1). With regard to choice, the district nutrition representative commented, “I think that as long as [schools] give [students] choice, they are going to choose what they like and not what they should have” (p.10).

In assessing the problems associated with implementation, the district nutrition representative identified fund-raising as the biggest obstacle. “The all important thing is getting the money. Not that [schools] don’t think [nutrition] is important, it’s just that they need money. That’s more important to them than the children’s health” (Former district nutrition representative, SM, 1997, p.2). Other obstacles included:

- difficulty in identifying acceptable food alternatives;
- perceptions by schools that programs were not needed (e.g., the milk program) or that they might interfere with the function of the school (e.g., breakfast programs might make students late);
- lack of facilities for access to food programs;
- lack of resources to fully implement the access to food programs;
- unsupportive parents — the district nutrition representative recalled an incident in which a mother specifically told a kindergarten teacher that she wanted her child to have a bag of chips every day at break;
- lack of recognition for schools that changed their practices in the direction of the policy; and
- poor role-modelling by some teachers.

The district nutrition representative found that stakeholders were unwilling to change. She commented, “I could never come up with definite answers that they didn’t have some reason why they couldn’t do things” (Former district nutrition representative, SM, 1997, p.8). A member of the nutrition committee, reflecting on implementation, said she thought the District should have agreed on its approach before they began the implementation process and not changed their minds: “There has to be a bit of pressure there. The powers that be can’t appear to waver” (District nutrition committee

member, MU, 1997, p.21). She felt that when schools sensed the District's uncertainty, they switched their attention to a different issue.

The district nutrition representative felt she was hindered by her lack of authority because she could only encourage schools, not tell them what to do. She felt that in any future implementation efforts, the policy should be an employee's sole responsibility. "If you had someone who was responsible for the program and could go in and monitor it and had the authority to tell [schools] that they were to do it, and to see that it was done, then it would be successful" (Former district nutrition representative, SM, 1997, p.2). She also thought more education was needed for teachers, students, and parents about nutrition, and that it was important to be aware of the influential position of principals in schools.

10.1.2 The second attempt at implementation

The second attempt at implementation began in 1997. The Department appointed a new Director of Education for the district and he was keen to make nutrition a priority. During a visit to the district as part of my research I showed him a canteen menu from an exemplary high school I had already visited (e.g., fresh fruit, muffins, cheese portions rather than processed cheese, juices, vegetables and dip, and sandwiches with no processed meats). He was very interested and when he sent a memo about nutrition to District F principals in May 1997, he attached the list. The memo identified changes that the Director wanted to make and informed principals that a nutrition committee had been formed.

I believe that you should . . . be discussing with your staff and those providing canteen services the expectations and standards outlined in the Provincial Nutrition Policy. For your review, please find enclosed an example of foods that could be offered through a canteen program. I would like to reiterate that these food offerings reflect what would be available on a regular basis. . . . We should also be making arrangements to have all soft drink machines converted to offering only juice(s) by next September (Elementary/ Middle Schools) (Director of Education, AD, memo, 1997, p.1).

During the summer of 1997, the contract for cafeteria services was tendered. The tender announcement included a stipulation that the company was to follow the Food and Nutrition Policy for New Brunswick Schools. As a result of the process, a new company was awarded the District cafeteria contract for 35 schools.

By the fall of 1997, the first district nutrition representative had retired. The Director of Education appointed a new representative who was responsible for the nutrition policy. He was the Supervisor of Special Projects and his other responsibilities included Physical Education and Technology Education (including Home Economics and other vocational subjects). His formal training was in Physical Education and music. The Director asked him to form a District Nutrition Committee whose mandate was “to look at nutrition and how to bring compliance to the provincial policy throughout the district” (District nutrition representative, IR, 1999, p.1). The District Nutrition Committee was composed of two principals, a parent who was a member of the District Parent Advisory Committee and a dietitian, two representatives from the new catering company, a vice-principal who was a member of the first district nutrition committee, a Home Economics teacher, three students from her school, and myself, as a participant-observer for my research and as a liaison for the Department of Education.

During 1997-1998, the main activities of the Committee were to plan its approach to implementation and to monitor a number of schools that made changes as a result of the nutrition memo (although the committee did not insist on its adherence in any schools). Initially, the district nutrition representative, reflecting his own beliefs and those of the Director of Education, intended to use an implementation approach that was similar to the first attempt. He felt that implementation could be achieved in a straightforward manner within six months to one year. He saw his role as “the hatchet man” (District nutrition representative, IR, 1999, p.10) who was prepared to tell schools what they would and would not do to implement the policy.

He was persuaded to abandon this approach through his dealings with principals. From them, he learned about the earlier resistance to implementation which resulted from the departmental approach of “thrusting down from above” (District nutrition representative, IR, 1999, p.2) and the District approach of developing an implementation plan with “very little or no consultation” (p.2). Some principals were vocal in their reactions: ““Oh God, you’re not going to start talking about that”; ‘kids are kids and they’ll eat what they want. If we don’t sell it [at the school], it’s going to be sold down at the corner store”” (p.2). Other principals gave almost no response; they hoped the issue would disappear again.

As a result of this feedback during the first six months of the committee’s formation, the district nutrition representative changed his perceptions. He realised the key ingredient “for the whole thing to work was really the process and the approach that we used” (District nutrition representative, IR, 1999, p.3). In the fall of 1998, the Committee began its new approach to implementation. The district nutrition representative felt his “role had changed quite dramatically” (p.10). He now saw himself as a facilitator for the Committee and the schools, to assist them with the change process. The Committee agreed that an important first step was to go to schools and learn more about how implementation could work. As a result, in the fall of 1998, I surveyed 19 elementary schools and interviewed 18 of the principals to learn about their current practices in relation to each of the policy objectives (McKenna, 1998). The committee used the results to identify best practices within the District. We then wanted to meet with all schools to discuss how they might achieve the level of District best practice (even if it did not correspond to the policy as written).

At the same time that the Committee was doing this work, changes were occurring within the organisational milieu at the District level. A new Superintendent and Director of Education had been appointed and they wanted to re-organise schools into clusters, known as Collaborative Learning Communities (CLC’s), that could then be used to foster vertical (K-12) and

horizontal (e.g., across one grade level) collaboration in making administrative and curriculum-related decisions. When the District was ready to test the concept using a practical example, the district nutrition representative proposed nutrition.

The District accepted his proposal, and in May 1999, the district nutrition committee held meetings with each of the four district clusters. Each school was asked to send a team to the meetings consisting of the principal, a teacher, a parent, and in high schools, a student representative. At the meeting, school teams had the opportunity to discuss current school activities, brainstorm new ideas, and develop a one-year plan to promote healthy eating in their schools. All schools now have plans which identify 77 actions that will promote healthy eating: 34 address the nutritional quality of foods, 24 address nutrition education, and 19 address access to food for students (McKenna, 1999).

The response by the participants was positive. Three indicators of success were identified. First, no one questioned why nutrition was chosen to test the cluster concept, although prior to the meeting, a principal had expressed his disappointment to me that the district had not chosen an issue with “more meat”, since he regarded nutrition as comparable to “tole painting” (Principal, PG, personal communication, May 1999). Second, fund-raising was identified as an issue at only the meeting of the high school cluster. Third, when participants evaluated the meetings, they said that they appreciated the opportunity to share ideas in an informal atmosphere (McKenna, 1999). After the meeting, one team told the district nutrition representative: “It’s refreshing to see the District asking us what we think and how we could do it [rather than coming to the meeting with all the answers]” (District nutrition representative, IR, 1999, p.7). As a result of being asked for their opinions, participants found the experience “empowering and beneficial” (p.7).

Based on the success of the CLC meetings, the committee’s plans for the coming year are to assist schools with their plans for change for 1999-2000 and to develop a nutrition awards program which has been approved by the

District. As well, the District will address access to food because, in August 1999, the provincial government chose it as the pilot site for a breakfast program in all K-5 schools beginning in October. The district nutrition representative was given the responsibility of coordinating the program, and the Committee will assist with its implementation. Schools will be encouraged to organise the program using their clusters. The district nutrition representative would also like to concentrate more on nutrition education.

The long term goals of the district nutrition representative are to ensure that no child in the district is hungry, and to improve nutrition education and physical education in schools. He uses the Comprehensive School Health (CSH) as the model to guide his work so that everything he does is “geared towards a healthier school” (District nutrition representative, IR, 1999, p.11).

10.2 Introduction to School Profiles in District F

The school profiles which follow are based on data collected during 1997 through 1999 and describe the process and outcomes of policy implementation. The four schools profiled include: a combined elementary-middle school (K-8) (School F1), an elementary school (K-5) (School F2), a middle school (6-8) (School F3), and a high school (9-12) (School F4).

The profile of each school is based on interviews with the principal or acting principal, at least one teacher, a parent (except in F3 where logistics prevented an interview), and two students; observational visits, documentation provided by the school, and a participant-observation activity with a class in each school. In schools with cafeterias, the food-service manager was also interviewed. All school-based interviews were conducted before the CLC meetings held in May 1999, so do not include reactions to the meetings.

10.3 Profile of School F1

School F1 is located in a physically isolated area near a residential subdivision. The school houses 750 students in grades K-8, although it was built as a high school to accommodate a much larger student population. It has a teaching staff of 37. All the students are bussed and stay at school for the entire school day.

The school operates a lunch-only cafeteria that is run by the district caterer. Children in grades 3-8 eat in the cafeteria, regardless of whether they purchase any food. Children in grades K-2 do not have access to the cafeteria. Instead, they eat in the classrooms with their teacher as the principal believes this is best for them. The lunch hour is divided into three segments; each group of students spends 30 minutes in the cafeteria and then has 30 minutes of free time. Teachers supervise the cafeteria.

The cafeteria menu is on a two-week rotation and features a daily special, a soup-of-the-day, and a fixed à la carte menu. The cafeteria menu is sent home to parents, but the parent who was interviewed, also a substitute teacher in the school, said she would prefer if there were fewer discrepancies between the published menu and what is actually served. As Figure 10.1 indicates, F1 actively participated in trying to improve the nutritional quality of foods it offered to students.

10.3.1 Changes to foods

Since 1997, F1 has made a number of changes in order to improve the nutritional quality of foods it makes available, but it did not do so in response to the Food and Nutrition Policy for New Brunswick Schools. No one during any of the interviews commented that any of their actions stemmed from the policy or district actions. The principal's perception was that his school took action "before the policy was formulated," and he added, "I think what we did as a school helped formulate a policy within the District" (Principal, WH, 1999, p.4). The principal now sits on the District Nutrition Committee and is

Figure 10.1 Key Points in Policy Implementation at F1

Changes to school foods	<ul style="list-style-type: none"> • Significant changes due to teacher and parent concerns, e.g., some less healthy foods removed from cafeteria menu, expanded menu of healthier options at lunch, french fries available only once per week, and the removal of all vending machines.
Priority of nutrition	<ul style="list-style-type: none"> • High • The changes provided an excellent opportunity for children to learn what is appropriate
Changes to organisational milieu	<ul style="list-style-type: none"> • Closer partnership between the principal and the cafeteria • More teacher and parent involvement
Approach to implementation	<ul style="list-style-type: none"> • Participatory • Teachers were concerned about school foods, monitored the cafeteria, took concerns to parents who met with principal • Principal met with caterer and worked to foster change
Fund-raising	<ul style="list-style-type: none"> • Not an issue • Priority of nutrition outweighed concern about profits
Student choice	<ul style="list-style-type: none"> • Felt schools should guide student choices
Nutrition education	<ul style="list-style-type: none"> • Nutrition taught in grades K-5 by classroom teachers, in grades 6-8 by the Home Economics teacher. • No connections between classrooms and food services
Access to food	<ul style="list-style-type: none"> • No formal programs. • School will buy lunch if needed. • No plans for a breakfast program

aware of the policy, which he described as “excellent. I think it is an opportunity for children to learn . . . what is appropriate for them” (p.12).

The principal supported the role of schools in promoting healthy eating. He believes that schools have to provide the most positive environment they can for children. “Somewhere along the line there has to be a happy medium

and if we can get children to learn that everything is bad in excess . . . Balance has not just to do with nutrition but your whole life . . .” (Principal, WH, 1997, p.5).

Prior to 1997-1998, the cafeteria menu “was basically reheated food and that was about it: pizza, fries, hotdogs, a lot of processed foods, Chinese food — which would be fried rice and chicken balls that were deep fried” (Teacher, SS, 1998, p.2). Beginning in 1996, the school began changing, as summarised in Figure 10.2.

Figure 10.2 Summary of F1 Approach to Change

Group of teachers discussed their concerns about the quality of cafeteria foods
Teachers voiced concerns to parents
Teachers conducted a three-month survey of foods available in the cafeteria
Parents met with principal to voice their concerns
Principal met with food-service caterer to seek changes; school removed vending machines
Principal was frustrated by caterer response. The district appointed a new caterer for the fall
Relationship with new caterer resulted in significant changes to cafeteria offerings. Nutrition education and access not targeted for change

The changes began when a group of teachers became concerned about inappropriate behaviour by students that they felt might be caused by their poor eating habits at lunch time. “We would notice, [when] on duty in the cafeteria, who had a can of pop, two doughnuts and a bag of chips, or doughnuts and ice cream, and then we would be complaining about their behaviour in class [later]” (Teacher, SS, 1998, p.3). The teachers also wanted healthier food

selections for themselves. One teacher in the group was the liaison with the school's Parent Advisory Committee and he took the teachers' concerns to several of the parents' meetings.

In the meantime, for three months, two teachers on cafeteria duty inconspicuously kept track of what was sold. One of them prepared a report in which she highlighted the highly processed food and french fries. The teachers then took the report to a Parent Advisory Committee meeting. "There was a lot of garbage food that was being served and the kids were predominantly purchasing that and the Committee was quite upset" (Teacher, SS, 1998, p.4).

The Parent Advisory Committee then went to the principal to see what could be changed. The parent who was interviewed was a member of the Parent Advisory Committee at the time. She believed that the changes came from the parents, although she noted there were also concerns from teachers. "We didn't want the pop machine any more, and [the school agreed to] take it out. We didn't want chips sold all the time, and fried food all the time. We wanted a little more effort put into the menus for the kids to have better meals" (Parent, JT, 1999, p.1). She felt that under the conditions that existed, the emphasis the school put on healthy eating for students in Grades K-2 was lost when they arrived at the cafeteria in grade 3.

The principal approached the caterer with the teacher and parent concerns. He tried to get the company to change, but was frustrated by the experience. Although they agreed to make changes, in fact, they made few. These events occurred near the end of the 1996-1997 school year. During the summer of 1997, the District awarded the catering contract to a new company. When the provincial supervisor from the catering company presented the principal with a menu near the opening of the 1997-1998 school year, the principal revised it considerably. When the company representative complained about the potential negative effect of the changes on his business, the principal was unsympathetic — that was the company's responsibility, not the school's.

Of course, they are in the business to make money and this was their original menu that we got in September but this is a high school menu

and we are not a high school and I don't think we should be selling french fries every day (Principal, WH, 1997, p.7).

When students returned to school in September 1997, they encountered the revised cafeteria menu and the absence of vending machines. Gone were the potato chips, the chocolate bars, and the soft drinks. French fries were available only on Friday, and then only as part of a main meal. The food-service employees said the students asked, "why so much salad, why are there no [potato] chips, and why are there no [french] fries" (Food-service employees, WS & JP, 1997, p.2). Students asked if the workers were from Weight Watchers, and if the manager, because she was slim, did not know how to prepare fattier foods.

Staff said that the overall cafeteria numbers and the number of regular customers decreased. "With the menu change, they didn't leave a whole lot of good stuff" (Food-service employees, WS & JP, 1997, p.2). During the fall, the number of staff was reduced from three to two because of the decreased sales, although the declines were due, at least in part, to a district re-organisation that resulted in the removal of grade 9 from the school in September.

During 1997-1998, the principal monitored and assessed the foods that the cafeteria served. The food-service employees struggled to maintain the changes. "It's real hard trying to come up with different things [students] like (Food-service employee, WS, 1997, p.1).

10.3.2 Foods available

For 1998-1999, the menu remained quite similar to the previous year, except the students had the option of buying pizza everyday, although the food-service staff were unsure if the principal would allow it again for 1999-2000. In general, the staff commented:

Things are a little better this year. There is more variety. We have nachos and cheese which the kids like. . . . We have hot turkey once per week and get sometimes 30 orders. The kids like chicken noodle soup. Many of the kids buy the same thing every day (Food-service employees, WS & JP, 1999, p.6).

Three full cafeteria observations of 1.5 hours each were completed during the three years of the study, as shown in Table 10.1. An average of 16% (122/750) of the student population were cafeteria customers. Of the 29 items that were available, 62% (18) were acceptable according to the policy as written. Of the 755 items that were purchased, 61% were “policy acceptable;” 54% (33/61) of these items were chocolate milk and the remaining 46% (28/61) came from the 17 other foods.

Table 10.1 Foods Available & Purchased at F1

Food Item	Purchases Oct 1997 102 customers	Purchases April 1998 128 customers	Purchases April 1999 137 customers
1. Special* ✓	30	0	19
2. Sandwich (BLT, egg salad) ✓	12	3	5
3. Soup** ✓	9	20	14
4. Hamburger/ cheeseburger ✓	5	not available	not available
5. Pizza (pepperoni)	not available	34	43
6. Caesar salad ✓	1	not available	not available
7. Vegetable plate ✓	1	0	1
8. Rice ✓	2	not available	not available
9. Dinner roll ✓	not available	2	2
10. Chocolate milk ✓	74	80	90
11. White milk ✓	10	12	18
12. Water ✓	1	2	4
13. Fruit drink	1	2	
14. Juice ✓	1	4	6
15. Ice cream ✓	21	0	
16. Choc. chip muffin	9	1	12
17. Choc. chip cookie	6	10	12

Food Item	Purchases Oct 1997 102 customers	Purchases April 1998 128 customers	Purchases April 1999 137 customers
18. Crackers	6	16	13
19. Rice krispie square	4	2	1
20. Frozen novelty	3	30	33
21. Apple ✓	2	1	
22. Jell-O	11	9	0
23. Pudding ✓	0	6	0
24. Ice cream novelty	8	13	10
25. Chocolate chip granola bar	1	0	0
26. Garden salad ✓	0	0	5
27. Oranges ✓	0	0	2
28. Vegetables/dip ✓	0	0	0
29. Carrot muffin	0	0	not available
Total Items	218	247	290

* Special 1997: cheeseburger, coleslaw, Caesar salad, rice

Special 1998: chicken noodle casserole with dinner roll

Special 1999: roast beef, gravy, mashed potatoes, vegetables, milk

** Soup choices: garden vegetable/vegetable beef and barley/chicken noodle/ beef and barley

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools

A fourth half-hour observation on a Friday in April 1999 when french fries were available indicated that 99 customers purchased foods. The hamburger and french fries special was purchased by 36% (36) of the customers, and another 22% (22) purchased a separate order of french fries. Other “main meal” dishes were less popular that day: 24 slices of pizza, nine bowls of soup, and one sandwich were sold. Chocolate milk continued to be popular, with 65 sales. The other 95 items that were purchased consisted of other beverages, frozen novelties, and dessert items. Of the total 252 items

sold, 39% (98) were “policy acceptable,” although this dropped to 13% (33) when chocolate milk was subtracted.

The cafeteria was divided into a serving area and a sitting area. The serving area had two posters on the wall, a milk poster and a poster from the catering company. The walls of the sitting area were bare.

10.3.3 Fund-raising

Fund-raising was never identified as an issue in making any changes at F1. The school obtained no revenue from the cafeteria, so there was no effect from those changes. No one who was interviewed mentioned the loss of revenue from the removal of the vending machine. The two fund-raising campaigns run by the school did not involve food. Occasionally, the principal gave permission for food like potato chips, soft drinks, and desserts to be sold to support special projects and this practice has continued. One of the students who was interviewed wondered how the cafeteria staff felt about the sales. The employee commented, “As you can see, it’s all junk food” (Food-service employee, WS, 1998, p.3).

10.3.4 Student choice

The principal and teachers who were interviewed agreed that food environments shape children’s choices and therefore it was appropriate for schools to help shape that environment. The principal commented that when french fries and gravy are available, for example, students choose them. A teacher echoed the principal’s opinion that students, in the absence of parents, need guidance with their food choices: “We have to, as teachers/educators, show them the right way and we had to do it with the [catering] company too” (Teacher, MC, 1997, p.2).

10.3.5 Nutrition education

According to the principal,

. . . the [*Canada's Food Guide to Healthy Eating* is] probably taught in every class and maybe less so at the higher grade levels because we may have a tendency to assume that they know them . . . I know in the primary and elementary grades, nutrition is taught a lot by teachers. . . . And then of course in [Grades] 6, 7, and 8 [Home Economics] courses, they still do something (Principal, WH, 1997, p.4).

Each of the three teachers who were interviewed included some nutrition education. Teacher I was the classroom teacher for grade 3. In this grade, the children study the basic food groups at the beginning of the year as part of a health unit, something she finds is not of great interest to them, and they discuss the effect of sugar consumption on teeth as part of a dental unit in the winter. In addition, since Christmas 1998, she has instigated a reward system for healthy eating:

To encourage good snack habits in the class, I have a system that I give the class a cube for each healthy snack. After so many cubes we get to choose an activity. But the cubes are not just for healthy snacks, but for good behaviours or speaking French, (Teacher, GF, 1999, p.1).

The rewards include going outdoors for gym, watching a movie, or having some free time within the class. The idea came from a supply teacher who was “appalled” (Teacher, GF, 1999, p.3) by the students’ snacks. Student behaviour changed with the cubes. “The first day I did it maybe there were three cubes and then the next day it went up to 13 and now there is always close to 20 cubes” (p.3). Apples and yogurt are the most popular snacks. Even so, sometimes the children “cheat a little bit” (p.3) by picking a healthy food for their snack and saving another item for lunch, such as potato chips or cake, that would not count as a cube.

This teacher defined a “healthy snack” using information she received during a grocery store tour conducted by a nutritionist and sponsored by her teachers’ union. As a result, she did not accept granola bars or fruit roll-ups, and was unsure if she should accept rice krispie squares. The tour had been her only in-service training on nutrition and she had received no training during her pre-service education.

Teacher II teaches physical education to grades 6-8 and English to grades 6 and 7. He said that he sometimes eats three or four kiwi fruit a day, and he notices now that some of the students eat them. Sometimes they call him “kiwi-man” or “apple man” (Teacher, MC, 1999, p.3). “If you make a joke out of it you will get most of the students listening to you” (p.3) and he finds about 20 percent may actually begin to eat the food. He still sees a lot of gum and candies, but reminds students that they do not want to spend time at the dentist’s.

He tells his physical education students, “I am what I eat” (Teacher, MC, 1999, p.1) and gives demonstrations (e.g., he lights a match under a potato chip to show the fat dripping from it) to help the students think about what they eat. He also coaches boys’ soccer and encourages his players to eat healthy food and to drink water instead of soft drinks. His nutrition knowledge comes from his own experiences and habits, not from taking a course or from any in-service training.

Teacher III teaches Home Economics to students in grades 6 to 8. She covers nutrition and foods-related topics in all three grades, although she anticipates that in 1999-2000 her teaching assignment in Home Economics will decrease. In all three grades, students participate in food labs where they prepare healthy food using fruits, vegetables, and lower fat cheeses.

In Grade 6, the time spent on nutrition is relatively brief and the information is basic and covers a review of *Canada’s Food Guide* and nutrient and food labelling. The Grade 7 curriculum contains the largest unit on nutrition.

We basically look at [vegetarianism], at *Canada’s Food Guide*, the number of servings, why we need that amount of [food], the energy balance level, food allergies, how nutrition affects our bodies, and then we talk a little bit about eating disorders (Teacher, SS, 1999, p.1).

Grade 8 nutrition education is directed more toward consumerism than nutrition, and includes information on grocery shopping, food packaging, and meal management. It also deals with emotional aspects of food and covers such issues as the influence of the media on body image.

This teacher commented that the background nutrition knowledge of children in her classes “would range . . . but they are very, very willing to learn” (Teacher, SS, 1999, p.6). Children with allergies are very knowledgeable. She notices that the eating habits of the students are independent of their social-economic status. When asked how the children respond to her teaching, she says, “God, they love me! Kids love to cook, they love to get into the kitchen . . . I give bonus points to anyone who cooks and cleans up at home. I have more notes from parents!” (p.4). She said that a lot of students try new foods and are “surprised that they actually enjoy it” (p.4). She also gets recipe requests from students and parents. This teacher graduated from a Home Economics program where she studied foods and nutrition.

The two grade 7 students who were interviewed said they learned about nutrition in Home Economics. They said that the teacher . . .

. . . sounds just like Mother Nature discussing McDonald’s and stuff ... We were learning how to cook — making stews and chili and stuff in our own little kitchens and she picked food out that was good for us.... our group made a chili and we just basically learned that eating [well] helps you, [especially] doing your sports because we are both very into sports (Students, A & S, 1997, p.5).

The students also mentioned that their coaches talk about eating a balanced diet: “breakfast is the most important meal of course . . . and always makes sure we eat” (p.6).

The three teachers said they do not currently connect their classroom teaching with the school’s food services. The cafeteria observations confirmed there was no student work on display. The food-service staff commented that they did not see many teachers, except one who is very interested in composting. On their own, the food-service staff conduct taste tests at the beginning of the year, and thereafter, allow students to taste a food if they ask.

The principal saw the opportunity to utilise the food services for educational purposes: “My vision would be that it could be a learning experience for children” (Principal, WH, 1997, p.1). Elaborating on this, the principal commented that a large number of children come from single-parent families and may not get the opportunity to eat foods such as Caesar salads or

to see food presented in a variety of ways. While the principal's view of the food service included an educational dimension, the food-service manager's view was narrower. "We feel we are here to provide a service to the customers" (Food-service employee, WS, 1998, p.3). The cafeteria staff said they receive no professional development related to nutrition education.

10.3.6 Access to food for students

As one means of increasing student access to food, F1 operates the provincial milk program. Students in grades 3-8 can access the program in the cafeteria, and K-2 students have the milk delivered to their classrooms. There have been no other actions to change students' access to food as a result of the policy. In terms of breakfast programs, the principal mentioned that some students in Grades 6-8 may not eat breakfast because that is their choice. He was also somewhat concerned that if food were freely available, children would "come and eat something whether they need it or not" (Principal, WH, 1997, p.11).

Although the school has no formal access to food program, the school will buy lunch if a student forgets it or is unable to purchase it. These students are identified by teachers or the students themselves will ask. Students who forget are asked to repay the money but the school pays for needy children. "None of the children we know about would ever be hungry" (Principal, WH, 1997, p.10).

The parent commented that some teachers keep cereal in the classroom for children who do not have a snack at recess. She felt this was a good practice as long as it was not abused. She thinks it is important that children eat in the morning, "because if they don't eat, then they are not productive and they are not learning because they are moving around in their seats. They are hungry and tired and they need to eat" (Parent, JT, 1999, p.7). The two students supported the establishment of a breakfast program even though they eat at home. They said that the children who do not have breakfast "will be

tired and cranky and we are the ones who will have to put up with it being in their class (Students, A & S, 1997, p.7).

10.3.7 Response to change and plans for the future

The principal, teachers, and parent were generally pleased with the changes that occurred in the cafeteria. A teacher said she was “astonished at the number of students who purchase soup, or salads, or sandwiches” (Teacher, SS, 1997, p.2). Nevertheless, there are still changes that the principal, teachers, and parents would like to see. The principal would like more food to be prepared on-site rather than being delivered in a prepared state. They all agreed that they would like to see a wider variety of food made available to students, so that students could see and taste different foods. The parent suggested adding vegetables and dip to the menu.

In reflecting on the change process, the principal commented, “I am very supportive and have been very supportive of good nutrition . . . it was no big deal [to make the changes] (Principal, WH, 1997, p.14), although during another conversation he said that the final year with the former catering company (1996-1997) “was terrible” (Principal, WH, 1997, second interview, p.2). In 1999, the principal commented that the changes to the cafeteria had resulted in an improved quality of foods brought from home. This contrasts with comments by cafeteria staff in 1997 that students “bring a lot of food from home. . . . Stuff we can’t sell like pop and chips. . . . I don’t see the logic... Something is wrong” (Food-service employees, WS & JP, 1997, p.2). They also commented that students who bring healthy food, such as applesauce, yogurt, and pudding, sometimes throw it in the garbage.

The principal felt it was “their parents’ business” (Principal, WH, 1997, p.6) regarding the food students brought to school. The parent felt there was some role for the school because “I think in some homes, sometimes the parents don’t know what is healthy and what is not, depending on the environment” (Parent, JT, 1999, p.6). She suggested that the cafeteria sell meal coupons to give parents more control over their children’s purchases.

Both grade 7 students ate in the cafeteria, but they differed on their opinions of the changes. One student preferred the healthier options, whereas the second student commented:

I buy popsicles and stuff like that every day but on Fridays when they have the really good stuff [french fries and pizza or french fries and hotdogs] I buy it. . . . Last year they had chips and pop and a lot of chocolate bars and pop and everything you would want. This year they are on some kind of health kick and it's all healthy food except packaged meals and basically they are saying that our school wants us to eat better. They don't think we are getting the right nutrition so they decided to get salads and stuff like that (Students, A & S, 1997, p.4).

Two classes, a Grade 6 and a Grade 8 class with a total of 42 students, were involved in the role-play experiences at F1. As nutrition experts, they were asked to analyse the cafeteria menu. There were 10 groups of students, with 3-4 students per group. All groups thought the menu encouraged healthy eating, at least somewhat. Two groups said the cafeteria had a lot of variety and two that it promoted the four food groups. Five groups identified healthy foods on the menu as including salad, soup, and milk, and the unhealthy foods as including french fries, cheeseburgers, and cookies.

When students were asked to comment on the establishment of a school breakfast program, eight of the ten groups thought it would be a good idea. They gave various reasons; it would help children feel more energetic, help them learn better, and help them avoid rushing in the morning.

After the role-playing concluded, each student was given a survey to complete about his or her actual use of the cafeteria. All 42 respondents were cafeteria customers. As part of the survey, students identified their three favourite food choices. The five items mentioned most often are shown in Table 10.2.

When asked about the good and bad points of the changes to the cafeteria, the positive comments were that 12 students liked the larger portions of pizza and fries, and 12 that there was more healthy food. Nine students were pleased that the price of chocolate milk had decreased. On the negative side, 18 students did not like the removal of potato chips, and seven mentioned the

Table 10.2 Favourite Cafeteria Foods at F1

Food Item	Number mentioning food (n=42)
Pizza (available once/week)	36
French fries (available once/week)	28
Caesar Salad	10
Chocolate milk	8
Hamburger/Cheeseburger	6
Chicken burger	6

loss of other foods such as soft drinks. Thirteen students wanted some foods, such as hamburgers, pizza, french fries, and fruit, served more often. Twelve students commented that most foods were more expensive. One student responded, “WE ARE NOT VEGETARIANS!!!” and commented that “more kid stuff” would be good. Another student commented “[as a good point] there’s a lot of healthier food sometimes and no potato chips. The bad points are I miss the chips, the food last year tasted better”.

The school has no major plans for the future regarding nutrition. The principal said he may install a juice and water machine for those who use the school after hours. There is some potential for establishing links between the classrooms and the food services regarding nutrition education. One of the teachers thought “that is a good idea to have something done. I could look into that” (Teacher, SS, 1999, p.3). The food-service staff were open to the idea, as long as it did not involve any clean-up work for them. No plans have been made at the school level to alter programs to increase student access to food.

10.3.8 Summary of School F1

In summary, through a team approach, teachers, parents, and the principal worked together to improve the nutritional quality of the school’s food services. The food-service company has adjusted to the changes, although with some difficulty. The overall response to the changes in food services were

positive. In the meantime, nutrition education and access to food have not changed either as a result of the policy or concerns of the community.

10.4 Profile of School F2

F2 is an elementary school located new the city’s industrial park. The school serves 261 students in grades K-5 divided among eight classes; and has a teaching staff of 15 teachers. There is a residential area behind the school, but most children are bussed. One nearby store sells food, but students require a note from home before they are allowed to leave the school grounds. The school offers three types of food services: a lunch program which includes the provincial milk program, a canteen, and a beverage machine, all of which are run by the principal. Because the school has no cafeteria, the lunch program consists primarily of food delivered from fast food restaurants. The menu sent home to parents is indicated in Table 10.3. Children have 15 minutes to eat in their classrooms under the supervision of their classroom teacher, and then have another 40 minutes of free time.

Table 10.3 Hot Lunch Menu at F2

Day & Cost	Food Item
Monday @\$0.50	1 hot dog (4 inches) with roll (premium-grade beef hot dog)
Tuesday @\$1.00	1 pizza slice from a 15" vegetarian pizza (no meat) from Pizza Twice
Wednesday @\$1.00	Chicken burger — oven-baked, breast meat patty with junior burger roll (no garnish) from McDonald’s
Thursday @\$1.00	1 pizza slice from a 15" hamburger and mozzarella cheese pizza from Pizza Twice
Friday @1.00	Hamburger — grilled hamburger patty with junior burger roll (no garnish) from McDonald’s

The school also sells snack food items from a canteen which is open during the morning recess and at noon hour and sells beverages from a vending machine. The vending machine contains two types of juice and three types of fruit drinks. The principal has stipulated that the machine is not to be filled with soft drinks. Under the direction of the principal, some changes have occurred at F2, as indicated in Figure 10.3.

Figure 10.3 Key Points in Policy Implementation at F2

Changes to school foods	<ul style="list-style-type: none"> • Some changes as a result of the district memo, e.g., decreased potato chip availability from 3 to 2 days per week, decreased hot dog availability from 2 to 1 day per week, soft drinks are not sold in the school
Priority of nutrition	<ul style="list-style-type: none"> • Low to moderate • Schools as educational institutions recognise the importance of healthy minds and bodies, but nutrition is not an issue for the public
Changes to organisational milieu	<ul style="list-style-type: none"> • No change
Approach to implementation	<ul style="list-style-type: none"> • All actions taken by the principal with little involvement of others
Fund-raising	<ul style="list-style-type: none"> • Changes did not interfere with profits. • Food-service funds go to a general school fund overseen by the principal. • School runs a chocolate bar campaign
Student choice	<ul style="list-style-type: none"> • Parents can choose or not choose to support the program
Nutrition education	<ul style="list-style-type: none"> • Nutrition taught by classroom teachers in health. • Slight connections between classrooms and food services
Access to food	<ul style="list-style-type: none"> • No formal program but students can phone home or get food from the school. • Breakfast program discontinued due to lack of volunteers

10.4.1 Changes to foods

The principal made a number of changes to the food-services at F2 after he arrived in 1994 including some changes that were in response to the initiatives by the district. The pathway to change is summarised in Figure 10.4.

Figure 10.4 Summary of F2 Approach to Change

Principal reviewed existing food-services upon arrival. His goals for the lunch program were to decrease the labour needed and improve the quality of foods. Principal continued existing breakfast program
Principal re-organised lunch menu so that food was delivered to the school, except for hot dogs which were prepared on site. He selected foods of the highest quality of the type available. The nutrition memo from the district was a factor in influencing his choices
Breakfast program ended due to lack of volunteers
Principal altered some canteen practices to increase compliance with the policy

The principal's views on nutrition were mixed. "We are mindful and try to be mindful of what the province is trying to do. We represent the best ideas in society. We are called a school and we are educators, but we are guided by some practicalities" (Principal, PG, 1998, p.12). He recognized that the actions of the Department regarding the policy were guided by the connections between a healthy body and a healthy mind. At the same time, he also felt "that the province in many respects is being very high minded about a matter that is not hitting public opinion" (p.10). He questioned why the Department "is railing against us" (p.11), but not against grocery stores that sell similar foods. He also felt that inconsistency of implementation among schools was a problem because he did not want to make changes when other schools were not.

When the principal arrived at F2, he first reviewed the school lunch program. He discovered that a woman was employed for \$75 per week to run the program which consisted of two days of homemade soup, two days of hot dogs, and one day of canned spaghetti. "It had been started on the basis that it

was somebody's idea of being very nutritious, at least in terms of the soup" (Principal, PG, 1998, p.8). He found it very labour intensive, and he questioned the quality of some of the foods (i.e., they were not serving a "quality hot dog") (p.8) and the appeal of the canned spaghetti.

After researching the alternatives, the principal had the food supplied by local fast-food outlets, except for the hotdogs, which continued to be prepared on site. He is proud of the quality of the food he offers at the school. "I went and found the top quality beef hot dog that I could find" (Principal, PG, 1998, p.9). He also found hot dog buns baked fresh daily with no preservatives, pizza made with no processed meats, and high quality hamburgers and chicken burgers.

He felt the nutrition policy had some influence on his decision.

I really felt that I was steering towards whatever I could learn out of the provincial policy and not to try to defend all and every part of it but when I looked at the hot dog, the meaning I got from the policy was they didn't want it to be a diet like one conceives of high school kids buying french fries every day. We served it once a week. We felt that was a modest reduction of that kind of product line. Now, we were not strict in our view, nor did we find that we were being pressed to be so strict (Principal, PG, 1998, p.10).

For two years submarine sandwiches were on the menu, but because they contained processed meat, the principal replaced them with a vegetarian pizza.

The principal also reviewed the food items sold in the canteen, a service he perceives as offering "pick-me-up treats" for students. He searched for items with some shelf life that were reasonably priced and that students would purchase. He also considered the district nutrition memo and as a result, decreased the availability of potato chips and other salty snacks from three days per week to two, and introduced ice milk products from Dairy Queen to sell everyday. When speaking of the potato chips, he said, "these products are on the market but we are not flooding them into the system on a daily basis" (Principal, PG, 1998, p.13).

10.4.2 Foods available

Data about the volume of foods sold in the lunch program were collected during two observation sessions at F2. These data are summarised in Table 10.4. Milk is also available in the lunch program and fruit juices and fruit drinks are available from the beverage machine. The hamburgers, milk, and juices comply with the nutrition policy as written. The other foods that are available do not, either because they are too high in fat or sodium, or are not acceptable beverages. The policy does not address the implications of offering young children fast food every day for lunch.

Table 10.4 Foods Available at F2 School Lunch Program and Number of Items Sold

Observation Session	Hotdog	Veggie pizza	Chicken burger	Hamburg pizza	Ham-burger
April 1998	80	36	64	90	64
May 1999	87	33	68	104	no school

Data about the foods available in the canteen were gathered in two observation periods and are reported in Table 10.5.

Table 10.5 Canteen Items at F2

1998 Canteen Items	1999 Canteen Items
15 full-fat salty snacks	9 full-fat salty snacks
2 reduced-fat salty snacks	2 reduced-fat salty snacks
1 low-fat salty snack	1 low-fat salty snack
2 frozen iced milk novelties from Dairy Queen	2 frozen iced milk novelties from Dairy Queen

Salty snacks are only sold Monday and Friday to students; however, staff can buy them any day. All salty snack items are included in this practice with no distinction made between full-fat and lower-fat choices. The principal

said this avoids confusion. None of the foods comply with the policy as written.

10.4.3 Fund-raising

The sale of food is the school's only source of revenue. Profits from all the food services go into the general school fund that is administered by the principal. This fund is used to supports a variety of school activities such as the school music program and has been used to buy computer technology. The school generates additional revenue by running an annual chocolate bar campaign. The principal did not connect the campaign with healthy eating as the school "doesn't support a regular diet of chocolate" (Principal, PG, 1998, second interview, p.6).

10.4.4 Student choice

According to the principal, the decision about food choices rests with parents. The parents are fully informed of the food items and therefore can decide what they wish to do. "They can choose or not choose. And from that point of view, we have the public voting" (Principal, PG, 1998, p.11). The parent who was interviewed supported the principal: "The kids like it and if the parents don't want their kids eating hot dogs then make them a chicken sandwich that day or a peanut butter sandwich. You know, it's all our choice. I think it's fine the way it is" (Parent, ND, 1998, p.6).

10.4.5 Nutrition education

The principal, who also teaches a grade 4 class each afternoon, noted that he had spent all his career at the elementary level and "I do know that we have programs called Health, we have curriculum in textbooks called health programs, and I realize that there are food discussions at various levels at various times up through the elementary level" (Principal, PG, 1998, p.14).

The teacher who was interviewed taught grade 2. She had taught for 31 years, all at F2. Although she had not taught the nutrition unit when

interviewed in May, she said she would be teaching it before the end of the year (4 lessons @ 30 minutes each). Her objective in teaching the unit is to “make students more aware of having a healthy body through what they eat” (Teacher, NS, 1999, p.1). They cover *Canada's Food Guide to Healthy Eating*, which the school nurse supplies for each student. The students do a project in which they classify pictures of foods into groups using the guide. They also discuss snack items and the sugar content of products like mini-sips, cookies and cakes, and how they are okay as a “once in a while treat, but not every day” (p.1). This teacher mentioned that she connects her instruction with the school's food services by talking about healthy snacks and the reason why potato chips are sold at the canteen only two times per week. She did not mention if she discussed the lunches.

The teacher finds the children respond especially well to the food group project. She thinks nutrition education can “really make a difference, especially if you get children at a young age” (Teacher, NS, 1999, p.1). She notices that sometimes the quality of children's snacks improves after the nutrition unit because they relay the information to parents. The teacher had no in-service education regarding nutrition. She also did not have the booklet for educators that accompanies the Food Guide, but accepted my offer to send her one.

The two Grade 4 students who were interviewed said they learned about nutrition from both home and school. They thought it was appropriate for schools to teach nutrition, which they had studied in the earlier grades. Nutrition is taught as part of health “because we know what our body needs and [the] nutrients we should eat the most . . . protein and sugar, and energy, potassium” (Students, J & M, 1998, p.4), and that some foods are healthy and some are not. Both students mentioned healthy food items they ate at home including fruit, vegetables and dip, and wheat crackers.

The principal was sceptical of the educational efforts to promote healthy eating and did not actively try to promote healthy eating in the school through education. He noted, for example, that parents allow students to bring

chips on the days they are not available, “so [students] are not getting overly educated if some process is underfoot to do so” (Principal, PG, 1998, p.12).

10.4.6 Access to food for students

There have been no changes in access to food programs as a result of the policy, except that the school offers the provincial milk program. Although there is no formal access program, students who arrive without a lunch are encouraged to call home and find out what to do. Alternatively, the school may offer the student a hot dog or encourage the children to share food.

When the principal arrived at the school, a breakfast program was run by a group of parent volunteers, but the program ended in the spring of 1996 due to a lack of volunteers who were available to help at 7:30 am. The program served approximately 90 of the 240 students in the school at that time. The program was universally accessible. “We had a policy that said, ‘Look, we don’t care if you had breakfast before you came or you are going down there to be with a friend. . . . If you want to go down, go down’” (Principal, PG, 1998, p.3). The group which ran the program was able to procure food supplies and the school contributed money to support the program.

10.4.7 Response to change and plans for the future.

The principal had a number of comments regarding the Department and District approach to change. He approved of the provincial milk program. “They did it right there. They put a support system in place” (Principal, PG, 1998, second interview, p.9). He was less positive about other aspects. For example, he referred to the 1997 district nutrition memo about examples of canteen foods (District F, 1997) as a “hit list” and was critical of a number of the suggestions. For example, the list says no processed meats and no processed cheese. He commented, “why is the province trying to be so pure?” (Principal, PG, 1998, p.3). The list recommends fresh fruit, to which he commented that he did not know anybody who would sell fruit without the proper equipment because students will not buy damaged fruit.

Generally speaking, those who were interviewed were pleased with the current situation at the school and there were no plans to change. The principal has invested considerable time and energy in organising the programs to meet what he feels are the school's needs.

The parent who was interviewed felt that the responsibility for a child's eating rested with the parent. She felt that too much was expected of teachers. She said it "is our job as a parent to pack a proper lunch and if we choose to put [our children] on a lunchtime program then we obviously have researched it out and we feel this is appropriate food for them to be eating" (Parent, ND, 1998, p.3). She was very enthusiastic about the lunch program. She liked the price and the convenience. "I put the cheque in the book-bag every Monday and I don't have to be making lunches. I don't have to worry about milk getting warm. I love it. . . I know he's getting nutrition . . . so there is a nice cold glass of milk with his meal and a nice hot lunch" (p.1).

The two Grade 4 students who were interviewed both used the school's food services. They differed in their views. One student said she sometimes buys vegetarian pizza, hamburgers, and drinks from the beverage machine. The other student buys hot dogs, chicken burgers, and ice cream sandwiches. This student thought the food was "pretty good" and that selling fattening foods was okay because he was active. The first student thought they could cut down on the fatty food in the canteen "[The food] can really be junk food... like the Dilly Bars, the layer of chocolate on the outside is quite a lot." She felt that these types of foods had a negative effect on energy levels. The second student added: "Dilly bars are healthier than the chips because they have milk in them" (Students, J & M, 1998, p.2). They suggested the canteen could sell bananas, pears, yogurt, and apple sauce.

Both students ate breakfast at home. Both remember when there was a breakfast program at F2, but disagreed on whether it should be reinstated. One student thought it should be reinstated because it would benefit an acquaintance who did not eat breakfast. This student used to eat the school breakfast because he was still hungry after eating at home. The second student

ate the school breakfast a couple of times, but felt that, because she had already eaten, “there is no sense in going down there” (Students, M & J, 1998, p.7). She did not think the program should be reinstated because she felt older students were too greedy and did not leave enough for the younger students. The teacher’s comment on the program was “there was a great need at that time and there probably still is” (Teacher, NS, 1999, p.2).

One grade 4 class containing 27 students participated in the role-play activity. Students were divided into six groups to discuss the hot lunch program and the canteen. Five groups gave a qualified yes to the question about whether the school’s food services promote healthy eating, and one group gave an unqualified yes. The students felt that the milk, vegetarian pizza, and chicken burger promoted healthy eating, while the hot dogs and pizza with meat topping did not. Suggested changes included: add soup, submarine sandwiches, fruit, yoghurt, and applesauce. One group suggested that the only low-fat salty snack be replaced with popsicles (frozen fruit-flavoured drink on a stick). Suggestions for student projects included: have students bring a healthy lunch, and put posters in the school “Apples Rule”, “Hannah the Banana”, and “Share your Pears”.

The 27 students completed surveys after the role-play (see Appendix E). Thirty-seven percent of the students (10) purchased milk and 15% (4) of the students purchased the hot lunch 4 or 5 times per week. An average of 14 students purchased milk or hot lunch less than once per week. When students were asked to identify their two favourite lunch items, 18 chose pizza and 10 chose the hamburgers.

The canteen results showed that approximately half the class, 13 students, did not buy from the canteen very often. The favourite items of canteen customers — six students reported using it once per week and four reported using it 4-5 times per week — were potato chips (20 students) and ice cream sandwiches (19 students). Six students (26%) reported that they had not eaten before class the morning of the survey. Six students made additional comments. Two students stated their approval for the current items, one

wanted chocolate bars added, while two commented they would like to see healthier foods, including reducing the availability of salty snacks from two days per week to one.

10.4.8 Summary of school F2

While F2 made some changes in accordance with the policy to improve the nutritional quality of food, there were no changes to nutrition education, and access to food for students diminished. The principal, whose desire to follow the nutrition policy was mixed, took the lead role in making the changes.

10.5 Profile of School F3

F3 is a grade 6-8 middle school located in a residential area of the city. The school is attended by 261 children who are taught by 15 teachers. Approximately 80% of the children are bussed to school. A number of food outlets are within a 15 minute walk from the school. Children can leave the school grounds at lunch providing they have a note from their parents, but the lunch break lasts only 30 minutes.

F3 runs its own cafeteria at lunch for students because the school population was too small to be part of the district tender. The cafeteria tries to operate on a break-even basis, rather than making a profit. The meal menu is on a one-week rotation; there is a daily soup and a fixed à la carte menu. The cafeteria has limited food preparation facilities, so twice a week the meals are ordered from fast food restaurants. Teachers supervise the cafeteria. The cafeteria is also the setting for a free breakfast, open to all students, a program that began in 1998. The school operates two beverage machines: one that contains water, juice, and sports drinks for students during the school day; and the second provides soft drinks for after school use only. F3 also runs an annual chocolate bar campaign. As Figure 10.5 indicates, F3 took an active role in implementing the Food and Nutrition Policy for New Brunswick Schools.

Figure 10.5 Key Points in Policy Implementation at F3

Changes to school foods	<ul style="list-style-type: none"> • Significant changes made due to district nutrition memo, e.g., eliminated soft drinks, chocolate bars, potato chips, sweet cakes, and increased the selection of healthier foods
Priority of Nutrition	<ul style="list-style-type: none"> • High • The school was told by the District to implement the policy so it did and decided to make significant menu changes
Changes to organisational milieu	<ul style="list-style-type: none"> • Closer partnership between the principal and the cafeteria. • Staff involvement in organising the breakfast program.
Approach to implementation	<ul style="list-style-type: none"> • Principal partnered with the cafeteria manager. • Vice-principal coordinated school breakfast program.
Fund-raising	<ul style="list-style-type: none"> • Continued to operate beverage machine in order to offset loss of revenue at the cafeteria. • School runs chocolate bar campaign.
Student choice	<ul style="list-style-type: none"> • Students' choices should be graduated — the older the student, the greater the choice
Nutrition education	<ul style="list-style-type: none"> • Nutrition taught in Home Economics and Health. • No connections between classrooms and food services.
Access to food	<ul style="list-style-type: none"> • No formal lunch program, but school will buy if needed. • Universally available free breakfast program begun in 1998.

10.5.1 Changes to foods

F3 was the only school where the efforts by the first district nutrition committee were mentioned, as indicated in the summary of the F3 approach to policy implementation outlined in Figure 10.6. The principal was on the Committee and changed some school foods at that time.

We stopped selling potato chips and some of the junk food we had downstairs, we didn't cut out the pop machine until the following year. We were under the understanding that everybody was going to do it, but I guess that they weren't (Principal, AC, 1999, p.13).

When active implementation ceased at the district level, the principal decided “let’s ease off a bit, mainly because we wanted to keep the cafeteria open, but maybe the end doesn’t justify the means” (p.15).

Figure 10.6 Summary of F3 Approach to Change

School revised school food offerings according to the District plan to implement the 1991 Food and Nutrition Policy for New Brunswick Schools
District-level implementation failed, and with little follow-up from the District, the school reverted to most of its former practices
With the new District initiative, the principal and cafeteria manager significantly revised the cafeteria menu, and limited accessibility to the soft drink machine
Under the initiative of the vice-principal, F3 introduced a universally available breakfast program for students, supervised by the cafeteria manager.

When the principal received the nutrition memo from the Director of Education in 1997, his reaction was, “we were told to implement [the policy] in September, so I said, ‘Well, that’s what we’ll do’” (Principal, AC, 1998, p.1). As a result of the memo, the school made nutrition a priority, with the principal playing a key role. The principal and cafeteria manager met to discuss what might be changed. The manager’s approach was: “I figured if we were going to change, we may as well change everything” (Cafeteria manager, SB, 1997, p.1). She drafted a new menu based on her nutrition knowledge as the parent of a diabetic son, the limited capability of the cafeteria to prepare food, and her desire to keep costs as low as possible and to offer variety. Although she used the district nutrition memo as a guide, she found it inconsistent. For example, “the district says no processed meats, but then recommends submarine sandwiches. What kinds of subs can a person make without processed meat that children will eat?” (Cafeteria manager, SB, 1997, p.1).

The resulting menu changes were significant. “We switched to low fat things. We don’t sell potato chips, pop, or chocolate bars any more. . . . We are trying to watch the fat content of things that we are selling. We are selling low-fat granola bars and things like that” (Principal, AC, 1998, p.1).

10.5.2 Foods available

Data about the foods available were gathered during three observations between 1997 and 1999. With the changes to school foods, a much higher proportion of the foods offered in 1997-1998, especially the à la carte items, complied with the policy than the menu reported by the cafeteria manager for 1996-97 (see Tables 10.6 and 10.7).

Table 10.6 Daily Cafeteria Specials at F3

Day	1996-1997	1997-1998
Monday	Ham & Cheese on Kaiser bun	McDonald’s hamburger
Tuesday	McDonald’s hamburger	Tuna salad sandwich
Wednesday	Salami & mozzarella on Kaiser bun	Hot dogs
Thursday	Hot dogs	Egg salad sandwich
Friday	Pizza (healthy day, no chocolate bars or chips were sold, but students could still buy cakes)	Pizza
Daily	Soup	Soup

The cafeteria manager said, “It took some time playing around with the menu to find out what would work” (Cafeteria manager, SB, 1997, p.3). She talked about the difficulty of finding healthier foods that were also relatively inexpensive. For example, a chicken burger with no batter is double the price of a hamburger. The principal said the school no longer offers processed meats. They tried salads and cut-up vegetables but they were not popular; however, water sales are strong. The cafeteria manager was pleased that

students were buying juice and lower-fat salty snacks: “I didn’t think they would” (p.4). Fruit roll-ups, granola-type bars, and milk are also popular.

Table 10.7 À la Carte Items Sold at F3 Cafeteria

1996-1997	1997-1998
2 milk (white and chocolate)	2 milk (white and chocolate)
2 fruit juices	2 fruit juices
5 soft drinks	0 soft drinks, 1 carbonated fruit drink, 1 water
5 sweet cakes	0 sweet cakes, 1 lower fat cookie
11 full-fat salty snacks	1 full-fat salty snack, 2 reduced-fat salty snacks
4 chocolate bars	0 chocolate bars, 2 granola-type bars
1 licorice nibs	1 raisins, 1 fruit leather
1 crackers and processed cheese	1 crackers and cheddar cheese portion

The school administration kept the school’s Parent Advisory Council informed of the changes and accompanied the menu changes with information and promotions. They posted menus in the classrooms, sent letters home to the parents, and “tried to do some promotion in the cafeteria as far as why we were making changes” (Teacher, LP, 1998, p.11).

Table 10.8 shows the foods available and purchased by all customers during the 30-minute lunch break, based on data collected during three observations. It was possible to observe all purchases. An average of 35% (90/261) of the student population purchased food at the cafeteria during the observations.

Of the 19 items available, 47% (9) were acceptable according to the policy as written. Forty-six percent of the students’ purchases were from these items, 41% (19/46) from the milk, 44% (20/46) from the hamburgers, and 15% (7/46) from the other seven foods.

Table 10.8 Foods Available and Purchased at F3 Cafeteria

Food item	1997 103 customers	1998 (May) 99 customers	1999 (May) 67 customers
1. Chocolate milk ✓	37	31	11
2. White milk ✓	1	3	0
3. Hamburger ✓	81	not available	not available
4. Pizza	not available	79	not available
5. Egg salad sand. ✓	not available	not available	1
6. Soup* ✓	4	3	6
7. Juice ✓	4	0	0
8. Carbonated fruit drink	1	6	0
9. Soda crackers	15	13	9
10. Cheese portion ✓	3	1	0
11. Reduced-fat salty snack	16	11	18
12. Full-fat salty snack	7	2	1
13. Low-fat salty snack	0	2	1
14. Fruit leather	2	0	0
15. Reduced fat cookies	3	1	0
16. Raisins ✓	1	0	not available
17. Ice Milk novelty	not available	not available	27
18. Frozen novelty	not available	not available	11
19. Granola bars ✓	0	0	3
Total items	175	152	84

* Soup: 1997 — tomato
1998 — chicken noodle
1999 — chicken noodle

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools.

In terms of decoration, there were five milk energy posters on the cafeteria walls, along with three nutrition posters, distributed by the Canadian Dietitians Association, and a large mural composite of cartoon characters (Field note, 19 May, 1999).

In 1999, one of the school's beverage machines contained eight types of soft drinks, intended for after school use. The second, containing four sports drinks, three fruit-flavoured drinks, two water, and one juice, was intended for student use. These offerings resembled earlier observations.

10.5.3 Fund-raising

The money from the beverage machines and sales from the cafeteria are used to support the cafeteria so it can continue to operate. Most items are sold at cost except for the "junk food" (Principal, AC, 1999, p.7), which subsidizes the operation. During the first year of the changes, 1997-1998, the school lost \$800 but this was reduced to \$200 the next year. The goal is to find a balance between selling healthy food and maintaining the financial viability of the cafeteria.

F3 also sells chocolate bars as a fund-raiser. The principal said chocolate bars are the easiest and least painful way to raise money. The school also produced a cookbook for sale in 1998 but had sold only half the copies by May 1999.

10.5.4 Student choice

The principal's view regarding choice is that he thinks students should be given choices between more and less nutritious food and "[we should] educate them and let them make the decisions" (Principal, AC, 1999, p.22). As children mature, he thinks they should be given more choices.

The Grade 8 students, when confronted with the cafeteria changes in 1997-98, initially used the choice argument. Their response was "It's not fair. We should have the choice. We are old enough. We know what's right for us.

... It should be our option” (Principal, AC, 1998, p.3). His response was that the school was adhering to the nutrition policy of the province.

In 1999, the cafeteria manager commented that the availability of foods appeared to be having a positive impact on student choices. She notices that more children choose reduced-fat salty snacks at school dances even when they have the option of purchasing full-fat salty snacks. Also, she sees more children at noon with yoghurt and granola-type bars: “That is what they like” (Cafeteria manager, SB, 1999, p.3).

10.5.5 Nutrition education

Nutrition is taught as part of Health, Home Economics, and Physical Education. The school nurse assists with the health component. Teacher I is responsible for teaching health in all three grade 8 classes. Regarding nutrition:

We talk about the *Canada Food Guide*. We talk about proper eating habits. We talk about menus and meals. We talk about what the different things do for the body; what vitamins are for this and what helps promote that, why you need variety and so on (Teacher, LP, 1998, p.16).

This teacher says that nutrition knowledge may not translate into action. Students may know the food groups and know that breakfast is important, but they do not always follow through in their actions. She hopes that as they mature, they use the knowledge eventually. She observes that those who are more athletic tend to eat more nutritiously. This teacher had over 20 years of experience and her knowledge on nutrition came from her education and her home experiences.

Teacher II teaches Grade 6 and 7 Home Economics as well as Science, Health, Math, and Guidance. Nutrition is part of Home Economics and Science. In Grade 6 Science, she covers nutrition during the unit on the digestive system. Students complete a three-day food record as an assignment, and this helps them become more aware of their own habits. In Home Economics, the students also cover the food guide which she finds they know well, and such topics as snacks, nutrients, and breakfast.

The two grade 8 students who were interviewed said they learn about nutrition from teachers, parents, other adults, and the news. They commented on the Home Economics program the previous year.

We were taught all about the food groups and everything and how we should have at least one of the food groups in every meal and usually when we make things [in labs] we always have each thing. . . like spaghetti and rolls and milk or something (Students, A & A, 1998, p.9).

At F3, there are no formal ties between the school food services and the classrooms. Food services did become the subject of classroom discussions in grade 8 when the changes were first made. Some students asked “why do we have to have these changes and why are you punishing us? . . . Why are you being so mean to us” (Teacher, LP, 1998, p.15); others did not mind, either because they brought food from home or they liked the new foods.

10.5.6 Access to food for students

Beginning in 1998, F3 made a free breakfast available to all students. The impetus for the program came from trying to ensure students had a productive day, not from the nutrition policy. The program was a collaborative effort among teachers, parents, students, and the cafeteria manager. The vice-principal oversaw the program and worked very hard to organise it and get donations. Student volunteers supplied the approximately 25 participants with white milk, white toast, English muffins, pure orange juice, jam, and hot chocolate in the winter. The cafeteria manager supervised the daily distribution of food. Initially, the plan was to have parent supervision, but this proved difficult. The school found local and national funding for the program and received food once per week from a nearby coffee/doughnut/bagel shop. At the end of the 1999 school year, the cafeteria manager commented the breakfast program “really went well: . . . kids serving kids” (Cafeteria manager, SB, 1999, p.1).

Although there is no formal program for children without lunch, they can go to a school administrator and get permission to eat in the cafeteria. According to the cafeteria manager, this happens rarely.

10.5.7 Response to change and plans for the future

The principal is proud of what the school has accomplished. He commented that we are “ninety percent there” in terms of policy implementation, although the school does have the financial challenge of maintaining the cafeteria. He noted that my visits were helpful reminders to the school of the need to maintain the changes.

The cafeteria manager said,

I see our school as an example, even if [the principal] hadn't been on the [district nutrition] committee. [In 1996-1997] there were complaints from parents about ‘all my child had for lunch was pop and chips’. This year there is none of that (Cafeteria manager, SB, 1997, p.4).

She said she had been planning to make some changes in 1997 anyway in response to the parental concerns.

Both the principal and the cafeteria manager commented on the inconsistency in the application of the policy. “Students ask me, ‘How come such and such a school is still selling french fries . . .’ [I tell them] I’m just doing what I am supposed to do” (Principal, AC, 1997, p.6). The cafeteria manager echoed this view: “This was for the whole district. They all received the same letter as this school. How come they can’t change?” (Cafeteria manager, SB, 1997, p.4).

Regarding the response by students, one circumstance that worked to the school’s advantage was that because of a district re-organisation of grades (grade 9 was dropped and grade 6 was added), two-thirds of the students left in June 1997. By September, two-thirds of the students were new to the school and were unaware of the previous foods offered at F3 and were more accepting of the changes.

One of the teachers saw the changes as part of the education of the whole child, and felt it was important to assist children with their learning. She felt it was “important to make the shift. It is important to promote healthy eating, [nevertheless] . . . there is still some conflict within my own thinking” (Teacher, LP, 1998, p.14). She was concerned, for example, that the changes

had caused some students to rush to buy chocolate bars at food outlets during lunch hour.

The grade 8 students who were interviewed said the change they noticed from the previous year was the healthier food: “Healthier everything. There is not pepperoni anymore on the pizza [although the cafeteria re-introduced pepperoni in 1998-1999] and it’s all like Sun chips. No pop. . . . And we have pretzels. No chocolate bars any more” (Students, A & A, 1998, p.6). They said they were told the changes were due to the school district, although they understood that the purpose was to make students more aware of healthy eating.

Both students ate breakfast at home. They ate lunch in the cafeteria before the changes, and continue to do so this year. They both bring their lunches: “A sandwich, a granola bar, an apple or an orange or something” (Students, A & A, 1998, p.7), but will buy chocolate milk. One student thought the changes were “good in a way;” but the other student commented “I think it’s stupid because we are just going to go get our own food anyway down at the store. If we want to get chips, we are just going to go get chips . . . so it doesn’t teach us anything” (Students, A & A, 1998, p.8).

Students in a grade 8 health class (n=23) were divided into five groups to participate in the role-play activity. Three groups thought the 1997-1998 menu encouraged healthy eating because the foods were healthier than before. The other two groups said there was no demand for healthy eating, or that students would get the unhealthy food elsewhere. Suggested changes included adding healthy foods such as salads, prohibiting students from leaving the grounds during school hours, charging less for healthy food, or using posters to inform students about the food. Suggested educational activities to link the classroom with food services included: use peer teaching to teach the risks of unhealthy eating, make posters, or identify 100 food facts for a project.

Data from the 23 students who completed the individual surveys (see Appendix E) after the role-play showed that 74% (n=17) bought food from the cafeteria at lunch. Their favourite foods are shown in Table 10.9. These

students had experienced the changes to the cafeteria menu so were asked for their comments. Eleven of the students either commented that they liked a particular food that had been added, (e.g., the low-fat salty snacks), or that they liked that the food was healthier, or that they wanted more healthy food (e.g., salads). Nine students did not like at least some aspect of the changes, either because it was healthier “The chips are the healthy crap”; or because they did not like the taste, “[They] took all the good food away.”

Of the eight students who commented about a breakfast program for the school, all but one thought it would be a good idea for those who had missed breakfast at home, or to provide “the most important meal of the day”. Seventeen (74%) of students had eaten breakfast the morning of the survey.

Eight students provided additional comments. Three students supported the changes, although two of them would like to have more food available that was less healthy. One wanted more salads and fruits, while another wanted a different type of pizza. One felt that the new menu made students late for school in the afternoon since they ran to the store at noon to buy foods they preferred.

Table 10.9 Favourite Cafeteria Foods at F3

Food Item	Number of Students Identifying it as a Favourite (n=17)
Pizza	13
Chicken burger	6
Hamburger	6
Reduced-fat salty snack	6
Juice	5

During the 1999 visit to the school, a number of positive comments were made in response to the breakfast program. Although the principal felt unable to assess the impact of the breakfast program, he said there were quite a few participants. The teachers thought the program was good. One parent

phoned to say her child would not eat breakfast at home, but would at school. The cafeteria manager was also pleased with the program. She commented on the sociability of it and said that students were well-behaved, and did not abuse the program by trying to eat more. She hoped that it helped with their school work since you “can’t learn on an empty stomach . . . If it’s helped a half dozen kids, then I’m happy” (Cafeteria manager, SB, 1999. p.4).

10.5.8 Summary of school F3

In its second attempt to implement the Food and Nutrition Policy for New Brunswick Schools, F3 made significant changes to its cafeteria menu. The principal and cafeteria manager worked together to provide students with healthier foods options and to limit the availability of less healthy foods. While some students initially resisted the changes, the results are that students are purchasing the healthier foods. The school initiated a breakfast program for 1998-1999, which was also successful.

10.6 Profile of F4

F4 houses approximately 1,250 students in grades 9-12. There are 71 teachers in the school which is located in a largely residential area. Students do not require permission to leave the school grounds and can purchase food at a few nearby outlets, including a coffee/doughnut/bagel shop, a pizza place, and a corner store.

The school operates a cafeteria which is open for 45 minutes before class begins in the morning and for one hour during lunch. The cafeteria is run by the district caterer and features a daily special, a soup-of-the-day, and a fixed à la carte menu, which is not sent home to parents. Teachers supervise the cafeteria. The school administration also runs a canteen that is open before school, at noon, and after school.

There has been no school-based decision to make any changes at F4 to promote healthier eating. The few changes that have occurred were made by

the district caterer. Figure 10.7 summarises key points related to policy implementation at F4.

Figure 10.7 Key Points Related to Policy Implementation at F4

Changes to school foods	<ul style="list-style-type: none"> • A few changes made due to caterer
Priority of nutrition	<ul style="list-style-type: none"> • Low • Other changes at the time had a much higher priority • The principal disagreed with the nature of the policy
Changes to organisational milieu	<ul style="list-style-type: none"> • None
Approach to implementation	<ul style="list-style-type: none"> • Did not implement
Fund-raising	<ul style="list-style-type: none"> • No change • Heavily dependent on food sales to support school programs
Student choice	<ul style="list-style-type: none"> • Giving students choice provides them with a better education
Nutrition education	<ul style="list-style-type: none"> • Nutrition taught in Home Economics, Physical Education, Chemistry and Biology. • No links between classrooms and food services
Access to food	<ul style="list-style-type: none"> • No programs. • Cafeteria serves breakfast to paying customers

10.6.1 Changes to foods

There have been no school-based initiatives to promote healthy eating at F4 due to the nutrition policy or for any other reason. The only group to make any change was the district caterer and these were minor. Nutrition is a low priority. The principal described the policy as “her midnight reading” (Principal, KD, 1997, p.11). Schools underwent a lot of other changes at the time the nutrition policy was introduced, and it was “not the highest priority on everybody’s list” (Acting Principal, LJ, 1999, p.1).

The principal disagreed strongly with the policy regarding the issue of student choice, but expressed her support for the general principal of promoting healthy eating: “These kids are our future. It pays to keep them healthy” (Principal, KD, 1997, p.3). She does not feel that current school practices are “at the expense of the health of the child” (p.9) because if the child wants the food they will go elsewhere to buy it. The principal believes that homes and schools share responsibility for nutrition. She believes most eating habits of students at the high school level are already formed. “All we can do is try and reinforce the good and to continually make sure that the choices are there for them” (p.6).

The principal and acting principal were at the school when the District Nutrition Committee first tried to implement the policy. The principal recalled the negative reaction from many schools. The acting principal said that at F4, “we didn’t over-react, we might have under-reacted, but nobody seemed to be following the policy to any degree” (Acting Principal, LJ, 1999, p.1).

10.6.2 Foods available

In 1997, the new cafeteria caterer revised the cafeteria menu somewhat. The offerings and student choices collected during three observations of lunch are shown in Table 10.10, and two observations of breakfast are shown in Table 10.11. The 1997 and 1999 lunch observations encompassed the complete lunch period of one hour while 1998 was a partial observation. The average percentage of customers in relation to the total student population, based on the 1997 and 1999 observations, was 12% (145/1,251).

Of the 29 items available, 41% (12 items) conformed to the policy as written. During the three observations, customers made a total of 584 purchases. Of these, 19% (110) were classified as “policy acceptable,” with milk sales comprising 58% (11/19) of the items, and the other 11 items comprising the remaining 42% (8/19). The parent who was interviewed commented: “They tend to serve things that the kids want, not what the parents prefer they eat, but I don’t know how you would correct that because even at

home your children will eat fast food before they eat good food” (Parent, BV, 1998, p.3).

The cafeteria manager, who was also the manager for the previous caterer at the same school, commented that the new company decreased the portion size of items such as french fries and did not offer as many “potato and meat meals” (Cafeteria manager, CG, 1998, p.2). She said the company seemed to be “. . .more nutrition conscious. They offer a lot more vegetable trays, Caesar salad, pasta salad, and bagels” (p.2). She finds that 90% of the students like their potato chips and french fries and not many choose the healthy food.

Two observations of a complete breakfast period of 45 minutes were conducted at the F4 cafeteria in 1997 and 1998, with the results shown in Table 10.11. The menu consisted of 20 items, 55% (11) of which conformed to the policy. Customers made a total of 163 purchases, of which 45% were “policy acceptable,” 82% (37/45) from chocolate milk and 18% (8/45) from the other 10 items.

A partial breakfast observation of 25 minutes was completed in 1998, with 36 customers observed. Of the 44 items sold, chocolate milk was the most popular (14 sold), followed by full-fat salty snacks (10 sold), and soft drinks (6).

Table 10.10 Foods Available and Purchased at F4 — Lunch

Food Item	Purchases Sept 1997 155 customers	Purchases May 1998 68 customers	Purchases June 1999 135 customers
1. Pizza	24	3	30
2. French fries	42	26	40
3. Poutine	not available	8	37
4. Chicken nuggets	not available	not available	13
5. Chicken burger	4	0	4
6. Nachos	7	0	0

Food Item	Purchases Sept 1997 155 customers	Purchases May 1998 68 customers	Purchases June 1999 135 customers
7. Special* ✓	6 (1 teacher)	2	not available
8. Onion rings	not available	6	2
9. Hamburger ✓	1	1	6
10. Sandwich ✓	2	1	1
11. Sub sandwich ✓	14	4	3
12. Salad ✓	1	1	0
13. Hot dogs	0	4	0
14. Rice ✓	4	not available	not available
15. Chocolate milk ✓	3	16	29
16. White milk ✓	4	0	0
17. Soft drinks	33	15	43
18. Drinks	5	0	12
19. Cappuccino	1	0	0
20. Water ✓	8	1	0
21. Juice ✓	4	0	0
22. Full-fat salty snacks	49	15	17
23. Reduced fat salty snacks	1	2	2
24. Muffin	1	0	1
25. Sweet	6	3	6
26. Frozen novelty	4	0	0
27. Apple ✓	2	0	0
28. Granola bar ✓	1	0	0
29. Pudding ✓	2	1	0
30. Yoghurt	0	0	0
31. Coffee	0	0	0

Food Item	Purchases Sept 1997 155 customers	Purchases May 1998 68 customers	Purchases June 1999 135 customers
Total items	229	109	246

- * Special 1997: Sweet & sour meat balls, Mixed vegetables, fried rice, milk or juice
Special 1998: Vegetable stir fry, chicken fried rice, pudding or Jell-O, milk or juice.
Special 1999: Not available since close to year end

- ✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools

The canteen operates on a supply and demand basis, with no changes due to the policy. Of the 46 different items in the canteen, observed during September 1997, 6.5% (3 items) complied with the policy as written, two types of juice and water. The other foods available consisted of 19 types of chocolate bars, nine types of soft drinks, seven types of full-fat salty snacks, four reduced-fat salty snacks, and four other items. Visits in 1998 and 1999 indicated little change. “That is the demand, that is what they want” (Teacher, HC, 1997, p.27). The students who were interviewed described the canteen food as “basically all junk food” (Students N & H, 1998, p.4), but felt that was acceptable since the foods were intended as snacks.

10.6.3 Fund-raising

The school depends heavily on canteen profits to support school programs. “There is endless pressure on schools to put money in the pocket” (Acting Principal, LJ, 1999, p.1). The annual athletics budget for the school is approximately \$65,000. The canteen and two other non-food campaigns supply the money for all athletics programs, as well as other programs at the school. The principal spoke of the canteen as a “touchy subject” (Principal, KD, 1997, p.8) and was clear about its importance as a source of revenue. “If that were taken out of the school, we don’t know where we’d get our money as we certainly don’t get it from the Department now” (p.9).

Table 10.11 Foods Available and Purchased at F4 — Breakfast

Food Item	Purchases October 1997 84 customers	Purchases June 1999 49 customers
1. Chocolate milk ✓	37	24
2. Cappuccino	17	4
3. Drink	7	2
4. Hot chocolate	4	0
5. Soft drink	4	5
6. Coffee	3	0
7. White milk ✓	2	0
8. Water ✓	1	0
9. Juice ✓	1	2
10. Full-fat salty snacks	8	4
11. Reduced-fat salty snacks	0	1
12. English muffin ✓	5	0
13. Bagel with pizza sauce & pepperoni	not available	15
12. Croissant	2	0
13. Sweet	2	10
14. Granola bar ✓	1	0
15. Muffin	1	1
16. Oranges ✓	0	0
17. Apples ✓	0	0
18. Yoghurt ✓	0	0
19. Plain bagel ✓	0	0
20. Toast ✓	0	0
Total items sold	95	68

* Special: Cappuccino & doughnut: \$1.50

✓ Acceptable foods according to the Food and Nutrition Policy for New Brunswick Schools

10.6.4 Student choice

The principal felt strongly that students should have a choice of foods as part of their education. Schools that provide only narrow choices do not help prepare students for the adult world, when they will be faced with many choices.

I think it is important that we give [students] choices. If we dictate to them — this is what you have. This is all you can have — then they are going to go some place else to get the stuff that they want. Whereas, if we keep them here and give them good choices, there is some hope that they will include some of the good food with the food that they eat on a more regular basis (Principal, KD, 1997, p.3).

The principal said that the parent advisory committee had discussed the quality of foods available at F4 and that parents were comfortable with what was offered, as long as there were choices for students.

10.6.5 Nutrition education.

The principal discussed the role of nutrition education at the high school level. She said that students have probably already received instruction in elementary and middle school; and that at the high school that could continue, covering “good foods, and what they should eat, and what they need, and their daily diet, and that type of thing” (Principal, KD, 1997, p.3). She mentioned a number of subjects at F4 where nutrition might be taught, including various Home Economics courses, Chemistry, Biology, and Physical Education. She said that the degree to which nutrition was covered would depend on the teacher’s interest in the subject.

Two Home Economics teachers, both with formal training in foods and nutrition, were interviewed. Their courses were electives for students. Teacher I, the Culinary Arts teacher, includes a section on nutrition when students learn to plan meals. The students then have to plan, prepare, and serve a meal and the menu must be nutritious. “And if it is not nutritious it is going back to be redone, and redone, and redone” (Teacher, HC, 1997, p.4). She said the students find the work technical, but she finds that at least some students are interested and will ask serious questions about nutrition.

Teacher II teaches a nutrition course, which she described as more academic than the culinary arts course. “It is more on the level of trying to prepare [students] if they were to go into nursing or sciences or nutrition or any of those aspects dealing with food beyond high school” (Teacher, BM, 1997, p.13). The topics she covers include *Canada’s Food Guide to Healthy Eating*, menu planning, body image and Body Mass Index. A few of her students who took the course went on to study nutrition at university, but the teacher said that many of the students find the course difficult.

The students who were interviewed said they learned about healthy eating in their physical education class, and that they studied “what gives you energy, carbohydrates, and things like that” (Students, N & H, 1998, p.6). They could not remember if they had been taught nutrition in earlier grades. One of the students mentioned that she lives in a household where everyone is an athlete and that was her main reason for eating healthy foods.

There are no formal ties between the school food services and the classroom. The primary purpose of the food services is to provide students with food. Neither of the Home Economics teachers connected classroom learning with the school’s food services. The food-service manager confirmed this and said the only times students have been involved is when two students took swabs for Biology class, and another helped in the cafeteria for course credit.

10.6.6 Access to food for students

Although breakfast and lunch are available at the school, there are no provisions in the school if a student arrives without food or money to purchase food. There were no actions to change students’ access to food as a result of the policy. The principal said that type of program was not found in high schools. One of the students who was interviewed said “90% of my friends don’t eat breakfast at all . . . they might come to school and get a bag of chips but they don’t really eat breakfast” (Students, N & H, 1998, p.10).

10.6.7 Response to change and plans for the future

The principal commented that the quality of the food at the cafeteria, since the district caterer was changed, “. . . does seem better. I think there is more of a conscious effort on the part of the company to make sure that what is offered on a daily basis does include what [students] should have” (Principal, KD, 1997, p.11). One of the Home Economics teachers commented that she has seen a “great improvement” in the cafeteria (Teacher, HC, 1997, p.6). She said that the portions of french fries had decreased, students now had to pay for gravy, granola-type bars and submarine sandwiches were available, and the pizza looked appealing, so that students might choose it instead of the french fries.

The parent who was interviewed said that her child’s friends seem to prefer the new caterer and that they enjoy the cafeteria. Her own children tended to take their lunches. She felt that proper nutrition had to come from the home and could not be the teachers’ problem. One suggestion she had was to have the school ask parents at the beginning of the school year what types of food they would like to see in the cafeteria.

One of the students who was interviewed said she had not noticed any changes in the cafeteria except that submarine sandwiches were available. Both students were customers at the cafeteria once or twice per week, otherwise they bought food at a nearby outlet. One loved the Caesar salad, and the other sometimes buys, “pizza, fries, onion rings, and . . . subs” (Students, N & H, 1998, p.2). This student said she would like to see an increase in the number of healthier foods, as long as they were offered at reasonable cost.

The administrators and teachers expressed no plans for change in the future. The principal believes that interest in nutrition and changes to more nutritional practices are evolving under the current system and that nutrition should not be taught as a separate subject.

It’s working its way naturally into things without feeling that it’s an added duty or a forced issue. Now if all of a sudden we were told that you have to spend so much time a day on something like this, that would ruin the effect of what we are managing to do naturally (Principal, KD, 1997, p.7).

She also thinks the changes should begin in elementary school and work through the system, and that popular foods could be prepared using healthier methods, rather than removing them.

One of the Home Economics teachers is hopeful that the positive trends she sees among students will continue. She feels that with more education and more healthy choices available, french fries, for example, might become a side dish, rather than a main dish. The other teacher thought the canteen could make a profit from selling more nutritious foods if the other foods were removed.

The students were interested in the idea of a free breakfast program. They thought it would be helpful for students who live far away, have to get up very early to catch a bus and may not have time to eat.

Three classes of Culinary Arts students participated in the role-play activity. The 56 students were divided into 13 groups and asked to discuss changes that could be made to their canteen and cafeteria that would promote healthy eating. Students generated an extensive list of foods that could be added to the canteen, including: cheese portions, vegetables and dip, rice cakes, granola bars, cheese and crackers, and fruit. They felt the canteen could significantly decrease the variety of less healthy foods they served, but should keep the most popular items. One group suggested that the canteen be closed in the morning and another suggested that healthier food be displayed prominently.

Students also suggested possible changes to the cafeteria menu, both for lunch and breakfast. For lunch, suggestions included: add a free fruit to the meal special, ensure the special covers the four food groups, advertise the healthy food, and announce the special on the school's public address system. For breakfast, students suggested that the cafeteria sell hot and cold breakfast cereals; more fruit, such as grapefruit; and bread sticks. They suggested the removal of cappuccino, doughnuts, apple pie, and coffee. Other general suggestions were to involve student athletes in making the changes, conduct a student survey to see who would support the change, add healthier food on a

trial basis, invite a nutritionist to the school to speak during an assembly, and offer more nutrition courses.

The groups felt that students, the student council, cafeteria staff, and teachers would be most affected by the changes. They thought that the only students who would support the changes were those who were concerned about healthy eating, such as student athletes. One group felt that students would be “more attentive” if they bought healthier food, and felt it would help students feel better about themselves and give them more energy. The major barriers to change were that the changes would be unpopular and the student council would lose fund-raising revenue. The comments by one group are illustrative:

Students and teachers will be affected by this change [to healthier eating]. Because [what they have now] is what they want. With the change to better nutrition, students would not want to buy, and in the long run, the students will not get their money back through school activities.

After the 56 students completed the role-play activity, they completed a survey (see Appendix E). Sixty-four percent of students (36) reported that they used the lunch services. When asked their five favourite foods french fries were a clear favourite, as indicated in Table 10.12.

Table 10.12 Favourite Cafeteria Foods at F4

Food Item	Number of Students Identifying it as a Favourite (n=56)
French fries	35
Pizza	24
Submarine sandwiches	15
Onion rings	8
Potato chips	7

A smaller percentage of students, 21% (12), reported buying items at the cafeteria in the morning. The three favourite choices were milk (7), muffin (7), fruit (3) and toast (3). Seventy-seven percent (43) of students used the canteen. Their three favourite choices were full-fat salty snacks (43), soft

drinks (27), and chocolate bars (21). Only three students provided additional comments. Two liked the food more and thought the prices were better with the previous caterer. The third commented that cafeteria staff should wear hair nets and gloves.

10.6.8 Summary of School F4

F4 is a good illustration of how inaction was used to avoid implementing the Food and Nutrition Policy for New Brunswick Schools. Inactive schools such as F4 received little support or pressure to change.

10.7 Discussion of District F and Schools F1-F4

District F used two contrasting approaches to implementing the Food and Nutrition Policy for New Brunswick Schools. The first, a top-down approach, was unsuccessful. The District Nutrition Committee did not have the full support of the school board which was responsible for administering the District, nor did the district nutrition representative have the authority to insist that schools make changes according to the policy. The approach had a significantly negative impact on the will of most schools to implement the policy. As a result, few lasting changes were made in the District, except that most schools implemented the provincial milk program.

The second attempt began with an approach similar to the first, but this time, the new district nutrition representative learned of the earlier opposition to a top-down policy process and decided a different approach was needed. Although the new Director of Education had sent a memo regarding the nutrition policy in May 1997, the District Nutrition Committee did not follow-up with schools to insist that changes be made. Instead they decided to use a more participatory process that involved gathering information from district principals and then taking steps to involve each school in the planning process, so that every school formulated a plan for promoting healthy eating.

It is too early to assess whether the new approach to implementation will result in a more effective policy implementation process, but the initial

response has been positive. Schools have indicated a greater willingness to change and have identified fewer reasons for not changing. An additional benefit is that, because schools were allowed to formulate their own plans, they could choose actions most meaningful to them. As a result, the schools are collectively addressing all three of the policy objectives, not just one or two. The fact that the District called the meetings and is going to follow-up with schools was an important signal to schools that this was an issue of some priority.

The challenge for the District now is to help schools build their capacity for change by providing ongoing assistance in the form of information and resources, and to do so using an approach that maintains the positive will created by the meetings that were held with schools. The District plans to reward schools that change, an action that can be interpreted as support for those who change, and pressure for those who have not. The reward system will also be a useful monitoring tool.

The four profiled schools provide excellent examples of local variability. If they were placed on a continuum of policy implementation, there would be a wide gap between school F4 and schools F1 and F3, with school F2 occupying the middle of the continuum.

At F4, neither the nature of the policy nor the approach to implementation had a positive influence on the will of the school to change in any of the areas related to the policy objectives. In terms of the effect of the nature of the policy, F4 depended heavily on the sale of foods for funds; the principal disagreed with the policy; and nutrition was overshadowed by other priorities. The district caterer took minimal action. There was no coordination of nutrition instruction among the various subject areas, no integration of classroom learning with the school's food services, and no access to food programs except the provincial milk program.

Likewise, the approach to implementation did not provide any motivational impetus. The administrators of F4 found that they could be inactive with no consequences. The organisational milieu did not support

change because the principal disagreed with the policy and was content with the status quo. Overall, F4 is a good example of the non-implementation of this policy.

F2, the school in the middle of the continuum, also illustrates the important influence of will. In this case, F2 was somewhat willing to implement the “letter of the policy,” but not the “spirit.” While the school made some changes to implement the policy, they made others that had a questionable contribution to the nutritional well-being of students. The principal played the main role in the process, and although he was very dedicated to providing his students with high quality foods, he appeared unwilling to recognise the role that the school could play, through either nutrition education or the types of foods offered, in shaping the food habits of students. He felt the choice rested with parents, not the school or the students. His response may have been due to the nature of the policy itself, but was certainly due to the Department and District approaches to implementation which he described as “high-minded”. Another influencing factor was the heavy dependence of the school on food for fund-raising. Other groups which might have taken action to improve the situation, such as teachers and parents, appeared to be satisfied with the status quo. It was unclear whether the group that appeared most knowledgeable about the food services, the students, desired change or had it within their power to effect change. Nutrition education did not receive any extra attention as a result of the policy, and access to food decreased due to difficulty recruiting volunteers.

F1 and F3 represent the positive end of the implementation continuum. Both were willing to change and consequently found the capacity to do so. F1 used a participatory approach to implement changes associated with the policy, even though the changes were not based on the Food and Nutrition Policy for New Brunswick Schools. The changes were instigated by teachers and parents; thus there was much involvement and support from the beginning. Because of the strong will to change within the school, potential barriers such as fund-raising and student choice did not become obstacles to implementation.

The organisational milieu changed to permit implementation to occur. Rather than the school's cafeteria being an area of little involvement for school personnel, the teachers, principal, and parents became more involved. The principal in both F1 and F3 has maintained ongoing contact with food-service staff. The only groups which have not participated fully are the food-service employees and students. This could change if the food-service staff had access to nutrition in-service education and if teachers began to involve their students in classroom nutrition activities that involved the food services.

At F3, the Food and Nutrition Policy for New Brunswick Schools had a significant impact on the nutritional quality of foods available. Fund-raising per se was not a significant issue in the changes, but the school administration wanted the cafeteria to be self-supporting. The fact that the school allowed the cafeteria to operate at a deficit during the transition period and to subsidise it from other school funds, attests to their commitment to make the changes. Choice was not a large factor in influencing the changes, although some students, and to a lesser degree the principal, felt that students should have choices.

At F3, the principal and cafeteria manager worked together closely to make the changes. They communicated with teachers and parents about their actions and students had an opportunity to provide their feedback. Change was facilitated by the fact that the school is small, the cafeteria is independently run, and the cafeteria manager actively supported the changes.

The breakfast program received positive reviews. Students were actively involved in delivering the program, the school administration secured funding for it, the cafeteria manager supervised it, and teachers felt it was fulfilling a need. Overall, the school is pleased with what they have accomplished and their plans for the future consist of continuing their efforts, with some continued adjustments to the programs as needed. Nutrition education and the links between food-services and classrooms were not identified as future priorities.

As a result of the May 1999 meetings, each of the four schools now have a plan for promoting healthy eating for 1999-2000. It will be interesting if this approach helps schools such as F3 and F1 maintain their changes and encourages them to address other objectives in the policy, while motivating schools such as F2 and particularly F4 to take significant action towards implementation.

10.8 Discussion of Local Variability

The profiles of Districts D and F, and the six schools, illustrate the variable actions that can occur at the local level in response to a single policy. For example, District D preferred to coordinate change at the district level, whereas District F preferred that individual schools coordinate their own changes. Although both districts initially took a different approach to implementation, in the end, both used a participatory approach.

Schools varied considerably in their response to the policy and to the implementation initiatives by the district. Table 10.13 summarises the actions taken by schools in relation to the three policy objectives.

In the six schools, the most widespread effect of the policy was the provincial milk program that accompanied it. Other than that, three schools made significant changes to the foods they offered, two others made some change, and one made no change; one school made minimal changes to nutrition education by linking its classrooms with its food services; and one school started a breakfast program, although this was not due to the policy.

The effect of the nature of the changes to the nutritional quality of foods becomes clearer in Table 10.14 which summarises the lunch-time availability and sales of policy acceptable items in school with cafeterias. The table shows that a higher percentage of the student population made lunch-time purchases in schools where the students' ability to leave the school grounds was restricted, except at F1 where the school composition was similar to D1 and F3, but participation rates were less than half.

Table 10.13 Summary of Policy-related Actions by Schools

School	Nutritional Quality of Foods	Nutrition Education	Access to Food*
D1	Some change	No change	No formal program Breakfast program discontinued
D2	Significant change	Minimal change	No formal program Breakfast program in planning stages
F1	Significant change**	No change	No formal program
F2	Some change	No change	No formal program Breakfast program discontinued
F3	Significant change	No change	Breakfast program started in 1998**
F4	Minimal change	No change	No change

* All six schools offered provincial milk program

** Changes were compliant with the policy, but were not due to the policy

Table 10.14 Availability and Sale of Policy Acceptable Items

School: Number of Students	% of population who were customers	% of menu items that were "policy acceptable"	% of total items sold that were policy acceptable	% of total items sold, excluding chocolate milk, that were policy acceptable
D1*: 742	39%	46%	36%	10%
D2: 1,294	13%	42%	43%	15%
F1*: 750	16%	62%	61%	28%
F3*: 261	35%	47%	46%	28%
F4: 1,251	12%	41%	19%	7%

* Schools which restricted students' ability to leave school grounds

School F1 had the highest percentage of menu items that were policy acceptable, but in all schools, over 40% of the menu items met this criteria. Differences between schools became evident when sales data were examined. The sale of policy acceptable foods at schools D2, F1, and F3 mirrored the availability percentages, but dropped at D1 and F4. The sale of policy acceptable foods at D1 were 36% of total sales, and at F4 they were 19%.

Because chocolate milk was very popular in many schools, it is useful to examine the sale of policy acceptable foods when chocolate milk is excluded: F1 and F3 had the highest rate of sales at 28%, followed by D2, then D1, and F4, at 7%. Sales of chocolate milk were proportionately lower in F4 compared with all others. In the four other schools, milk sales comprised an average of 26% of total sales, whereas in F4, milk comprised 12% of total sales. All other schools permitted customers to pick up their milk, but at F4, customers had to request it from a food-service employee. F4 was also the only school where milk competed directly with soft drinks, as both were sold in the cafeteria. In F4, total sales of milk were about half the total sales of soft drinks.

The data indicate that it is not sufficient to make a certain number of healthy choices available in hopes that students will choose them, and then impose no other restrictions. If students are to be allowed to choose from among healthy and less healthy foods, attention must be given to the nature of the less healthy choices to increase the probability that students will make healthier choices. For example, F4, the school where the lowest percentage of "policy acceptable" foods was sold, was the only school where the cafeteria offered french fries on a daily basis, sold a large assortment of full fat salty snacks, and as mentioned, sold soft drinks. By contrast, students' choices at schools F2 and F3 in particular were guided toward making healthier choices, and the result was that students ended up making those healthier choices. At school F1, the negative effect, however, might have been that fewer students purchased foods.

The data also show that schools have an important role to play in the change process. If change is left to food-service companies, as in F4, then change is likely to be minimal. The food-service companies are aware of “loopholes” in the policy that can be invoked to prevent any significant improvement to the nutritional quality of the foods or any reduction in profits. More change will occur, as in F3, when the cafeteria manager supports the change.

With regard to access to food programs, data on student consumption of breakfast was collected in D1, D2, F2, and F4 through the written survey. The results indicated that of the 119 students surveyed, 35, or 29%, indicated that they had not eaten breakfast. This figure is considerably higher than the 12% reported by the SNDA study (Burghardt & Devaney, 1995), and warrants further investigation.

The approach to implementation also varied considerably among schools, as shown in Figure 10.8. The data indicate that schools that changed most significantly used a participatory approach (D2 and F1) or did so as part of a partnership. The table also shows that the principal was the most important stakeholder, and was the leader of change in schools.

Figure 10.8 Summary of the Six Schools' Approach to Implementation

School	Approach to Implementation
D1	Little school involvement
D2	Participatory approach, with principal taking the lead
F1	Participatory approach, with high principal, teacher, and parent involvement
F2	All actions taken by the principal, with little involvement from others
F3	Principal partnered with cafeteria manager to change foods; vice principal provided leadership in organising breakfast
F4	Did not implement

The examination of local variability provides an opportunity to examine the factors that influence the capacity and will of districts and schools to implement the policy. Table 10.15, which summarises the results, reinforces the important role played by the principal; illustrates that an organisational milieu that supports partnerships between schools and food services (as in D2, F1 and F3) is more likely to be associated with positive change; and demonstrates the importance that the approach to implementation can have in either encouraging or discouraging schools to implement change.

The overall results from the schools indicate there may be a certain school “culture” related to nutrition that can either impede or enhance change. For example, in F4, where little change occurred, there was a generally negative or neutral attitude toward the policy: the principal opposed it, the acting principal was ambivalent, the teachers appeared satisfied that the changes were an improvement, the parent was resigned to the fact that children preferred “junk food”, the students had no strong opinions, and the cafeteria manager knew how much the students liked their french fries. This contrasts sharply with the attitudes in F1, which achieved change. There, a broader group – the principal, teachers, parent, and one of the students – supported change.

It is not possible to identify specific factors that contributed to implementation of the nutrition education objective, since there was so little action in the area. A possible first step toward fostering greater capacity and will would be to create awareness of the learning possibilities associated with having closer partnerships between classrooms and food services.

Table 10.15. The Capacity and Will of Schools to Implement the Policy

School	Nature of Policy	Organisational Milieu	Approach to Implementation
D1	(+) effect on capacity & will since principal permitted implementation as directed by district	(-) effect on capacity & will since principal did not see it as a school issue, food service preparation techniques did not support capacity (+) closed campus	(-) effect on will to change as the approach had relatively little impact on the school
D2	initially a (-) effect on will, but it became (+): principal took the lead	(+) effect on capacity & will: good working relationship between principal and food-services (-) proximity to food outlets	(+) effect: district and school involvement encouraged change
F1	little effect on capacity or will since changes were not due to policy	(+) effect on capacity & will: good communication among teachers, parents, principals (+) closed campus	little effect on capacity or will since changes were not due to policy
F2	(-) effect on will since principal questioned need for policy	(+) effect on capacity: principal made key decisions (+) closed campus	(-) effect on principal will: department was considered "high minded"
F3	(+) effect on capacity & will to change: principal supported	(+) effect on capacity & will: cafeteria manager supported (+) students had restricted ability to leave school grounds	little effect: school responded independently to memo; organised breakfast program independently
F4	(-) effect on will since principal did not support it	(-) effect on capacity & will due to dependence on fund-raising	(-) effect on will: implementation caused chaos and upheaval

10.9 Summary

Districts and schools demonstrated considerable variability in the changes they made in response to the policy and their approach to implementation. The rich variability of information they provided proved helpful in formulating the recommendations for the future, discussed in the next chapter.

Chapter 11

Recommendations for the Future

11.1 Introduction

This research examined the policy process surrounding the Food and Nutrition Policy for New Brunswick Schools and the factors that influenced its implementation at both the macro- and micro-levels: the nature of the policy, the organisational milieu, the approach to policy development, and the approach to implementation. The results showed that the problems of policy implementation were largely problems of will. In many cases, unwillingness led to inaction so the potential problems associated with capacity never arose. In the two districts that were studied, all six schools implemented the school milk program, four schools (D1, D2, F2, and F3) made at least some additional changes due to the policy, a fifth (F1) changed but not due to the policy, and the sixth (F4) did not change.

The response by districts and schools to the policy is an important reminder of a question posed by McLaughlin (1987). Policy agencies may not get what they *want*, but do the agencies get what they *need* when policy is put into practice? Department of Education staff in New Brunswick did not get what they wanted; but, in this case neither did New Brunswick school children get their nutritional needs met. The quality of food offered is often still poor, nutrition education is fragmented, and access to food is not addressed in most schools. The continuing challenge is to find an effective approach to improve the situation.

Neither this study or others reported in the literature proved that policy is an appropriate instrument by which to address school nutrition, even though calls for policy development in this area are widespread. Certainly, as implemented, this policy was not appropriate, but the problem may have less to do with the policy objectives and more to do with the policy process. The data indicate there were problems with the nature of the policy, the organisational milieu, and the approach to both policy development and

implementation. Nevertheless, the policy objectives themselves appear to be worthwhile.

The intervention literature, reported in Chapter 3, indicated that students could benefit from improved quality of foods, co-ordinated nutrition education, and the ability to access food. The challenge, therefore is to use the New Brunswick case experience to recommend a revised policy process to achieve these objectives. This chapter addresses this challenge by synthesising the results from three sources — the New Brunswick case study, information about policy implementation from the conceptual framework, and information derived from the research presented in the literature review — and applies them to a discussion of the following questions:

1. How could the nature of the Food and Nutrition Policy for New Brunswick Schools become less of a deterrent to implementation?
2. What changes need to be made in the organisational milieu to make it more conducive to policy implementation?
3. How can the research inform the process of policy development?
4. What approach to policy implementation might result in a more effective combination of supports and pressures to enhance implementation?

The chapter then examines the implications of the discussion for educators and health promoters. In doing so, it gives educators an opportunity to reflect on the current status of nutrition in schools, the factors that contribute to this status, and how the situation might be altered to enhance health promotion efforts; and allows health promoters to consider their roles in assisting schools with promoting healthy eating. It helps both groups consider potential areas of collaboration. The chapter also addresses outstanding issues resulting from the research and provides an overall summary. The long-term goal of this research is to contribute to the improvement of the nutritional-well being of students. In this regard, the chapter provides an important foundation for future work.

11.2 Nature of the Policy

The nature of the Food and Nutrition Policy for New Brunswick Schools contributed to problems of implementation. Not only was there conflict about fund-raising, student choice, and the priority of nutrition, stakeholders were confused about how to interpret the policy. As well, the controversy meant that attention was focussed on parts of the policy rather than on the whole.

Recommendation 1: The Department of Education should address all three of the policy objectives, clarify the nature of the policy with stakeholders, and address stakeholder concerns about fund-raising and student choice.

The three policy objectives are inter-connected. It is not enough to just make healthier foods available. Students need nutrition education to understand how their environments guide their food choices and to learn basic nutrition information they can apply to their daily lives. Similarly, it makes little difference if healthier food is available if it is inaccessible to some students. Thus, it is important for the Department to recognise the importance of all the policy objectives by adopting a comprehensive approach to implementation.

To clarify the nature of the policy, the Department of Education could solicit input from dietitians, district and school staff, food-service personnel, and others with policy-related experience. A key issue is the practical meaning of the phrase “promoting healthy eating in school.” Data from the literature review indicate that this issue is not unique to New Brunswick. Those responsible for providing students with food in schools face the challenge of finding food that is not only nutritious, but appealing, relatively easy to prepare, and relatively inexpensive. The results of the SNDA study (Burghardt & Devaney, 1995) indicated that when more pre-prepared foods were used by a catering company, it became more difficult to satisfy the dietary principle of moderation. One of the caterers in District F mentioned that her company is using an increased number of pre-prepared foods, a trend that may pose an additional challenge to the provision of nutritious foods. A number of the results from the New Brunswick case indicated that the policy as written is

inadequate to fully address the complexity of the current food supply.

Outstanding areas of concern include:

- What is the acceptability of certain foods that are not identified by the policy? For example, processed meat and processed cheese are not mentioned by the policy, but because the 1997 District F nutrition memo mentioned that they were not on the canteen menu of an exemplary school, District F principals interpreted this to mean that they were no longer acceptable. As a result, two schools cut out submarine sandwiches to eliminate processed meat. One school, F3, said it no longer offered processed meats, yet continued to sell hotdogs, as did the other three district schools (yet the policy states that high fat and salt foods should not be provided) (NB Department of Education, 1991).
- Is the promotion of healthy eating based on the absolute or relative nutritional content of foods? For example, pretzels have relatively little nutritional value and are high in salt (contra-indicated by the policy), but because they are low in fat, they are seen as a more comparable substitute to full-fat potato chips than raisins, for example. Does this mean pretzels are acceptable? If pretzels are acceptable, would another type of salty snack which contains 30% less fat than full-fat potato chips, also be acceptable? What proportion of foods offered by a school food service should be healthy? Must they all be healthy, should most be healthy, or is it acceptable that as long as students have a healthy choice (e.g., a “healthier” cafeteria special), other items can be offered as market forces dictate (e.g., the à la carte items)? More fundamentally, is it better to offer naturally healthy choices like whole grains (e.g., multi-grain bagels), vegetables (e.g., vegetables and dip), and fruit (e.g., fresh fruit) that have not been found to be overly appealing to students under current conditions, or to offer lower-fat, lower-sodium versions of more popular fast foods such as pizza, hamburgers, and salty snacks? What if even these “healthier” foods still do not carry the same appeal as the “regular” fast foods? At school F2, for example, sales of the vegetarian pizza were one-half to two-thirds lower than the other items such as hot dogs and

hamburgers. Furthermore, how will “healthiness” be assessed and monitored, and by whom?

- How can schools be assisted in choosing foods from a single product category (e.g., pizza, muffins, popcorn) when there is wide nutritional variation among the products in the category?
- What food preparation methods are acceptable? For example, are french fries acceptable? Does it matter if they are deep-fried or baked; sold à la carte or only as part of a meal? Are home fries a healthier alternative?
- What is the role of fast foods delivered from “brand-name” restaurants? Public schools, as educational institutions, need to consider the degree to which they want to endorse fast foods and help companies develop brand loyalty among a young clientele, as well as the potential effect such practices have on the long-term eating habits of children.

As part of the process of policy clarification, the Department must also be more sensitive to stakeholder concerns regarding the issues of fund-raising and student choice. The policy has fund-raising implications that the Department cannot ignore, however, as a student at F4 noted, students are already indirectly paying for their student activities through their food purchases. One option would be for schools to collect activity fees directly from students and get out of the food business.

Likewise, there are differing opinions about how much choice to give students in their food selections. One strategy for addressing both issues is by increasing stakeholder involvement in the implementation process. Results from schools that achieved significant change show that when participation was high, schools made more effort to resolve these issues. Another strategy is for the Department to encourage districts and schools to share their strategies for successfully dealing with both issues. Such shared information could also include data on the effect of implementation. For example, reports from the literature (e.g., see Burghardt & Devaney, 1995; Resnicow, Robinson, & Frank, 1996) and the results from this research, show that students tend to make healthier choices when they were guided by schools. In the three schools where significant change occurred (D2, F1, and F3), interview participants

expressed surprise that the students ate healthier food. Choices were less healthy when market forces determined availability. These results might help those who support the “wide choice” argument reconsider their position.

On the other hand, those who support the “guided choice” argument must consider its implications. As Rose and Falconer (1990) state, does it mean that student and parents lack the ability to judge appropriate food? Or as one principal mentioned, is it providing students with a narrow education if only healthy foods are offered?

The history of the policy process shows that nutrition education was a neglected objective and the data from the six schools indicate that nutrition education in New Brunswick classrooms warrants review. The results indicated that, regardless of grade level or subject, *Canada's Food Guide to Healthy Eating* was used by all nine teachers who were interviewed who taught nutrition. As well, most teachers used a knowledge-based orientation in their teaching; that is, they taught content and hoped that students would understand and act on the behavioural implications of the content. Recent literature indicates that students are more likely to make positive behaviour changes when the teaching strategies are more behaviourally oriented; that is, students address the behavioural aspects of their learning directly (e.g., Centers for Disease Control, 1996; Contento *et al*, 1995). Two teachers did include a behavioural orientation — a classroom teacher at F1 rewarded children for eating healthy snacks and the Home Economics teacher at F1 gave bonus points to students who prepared healthy food at home. The potential for linking classroom nutrition education with school food-services is virtually unexplored. None of the curriculum documents raise the possibility and use by teachers was very limited. The results suggest that New Brunswick teachers might benefit from a K-12 compilation of behaviourally-oriented strategies and ideas designed to encourage greater coordination in the teaching of nutrition.

Just as opportunities exist to deliver more effective nutrition education, so could access to food programs be more fully integrated into other school activities. At F3, for example, the breakfast program functioned as an opportunity for students to socialise before class. With a larger base of

volunteers, access programs could offer opportunities for informal interaction between students and adults (parent or teacher), or could be combined with remedial or enrichment activities.

Access to food programs, as McIntyre, Travers, and Dayle (1999) explained in Chapter 3, exist as a means to reduce inequity -- all children should be able to access food each morning. Nevertheless, the SNDA study (Burghardt & Devaney, 1995), also reported in Chapter 3, indicated that even in schools with breakfast programs, 12% of students went without breakfast. The data collected from students at four of the profiled schools indicated that 29% of students who answered the optional question on breakfast had not eaten before coming to class. None of these schools was operating breakfast programs when the data were collected. It is not clear, however, what action might be most effective in addressing the problem. Should governments, as Jarrett suggested (Hansard, 1991a) in Chapter 7, concentrate on improving the overall economic status of families so they can look after their own needs, or is an educational component on the importance of breakfast needed, or should school opening times and bus schedules be reviewed in order to ensure children are given a reasonable amount of time to prepare for school?

11.3 Organisational Milieu

The organisational milieu surrounding the policy influenced implementation in two key ways. First, the Departmental will to implement the Food and Nutrition Policy for New Brunswick Schools was relatively low, and second nutrition was viewed as peripheral to the main educational role of schools. Because of low departmental will to implement the policy, few resources were provided to support the policy implementation process, implementation was not a priority, and the approach to implementation was insensitive to the nature of the policy and the concerns of stakeholders.

Recommendation 2: The Department of Education should recognise the leadership role it plays in policy implementation and demonstrate the political will needed to create change.

As shown in Figure 11.1, stakeholders might raise a number of obstacles to implementation, although the results of this research indicated that some might manifest themselves more significantly than others.

The first step the Department might take is to examine its position on the policy and to determine if it is prepared to deal with potential opposition it might have to face, especially from politically powerful groups such as major food companies. Even in this research, for example, the Department did not want McCain's approached about its role in the implementation process.

Figure 11.1 Potential Obstacles to Implementation

Stakeholder group	Potential reason for opposition
Policy Objective #1: Changing foods <ul style="list-style-type: none"> • food companies • food service providers • students • parents • administrators • teachers 	<ul style="list-style-type: none"> • lose money • lose money; unhappy customers • dislike changes; lose money* • unhappy children; lose money* • unhappy children; concerns about children leaving school grounds; lose money* • unhappy children; lose money*
Policy Objective #2: Nutrition education <ul style="list-style-type: none"> • teachers • students • parents • administrators • food service staff 	<ul style="list-style-type: none"> • have to teach new content; lack of background; lack of time • not a priority subject • mis-guided educational priority • have to oversee education • have to coordinate with classrooms
Policy Objective #3: Access to food <ul style="list-style-type: none"> • teachers • administrators • students • volunteer groups 	<ul style="list-style-type: none"> • lose teaching time • have to oversee programs • may become dependent; stigmatised • have to help organise

*Loss of money in cases where these groups are offering foods or food services as a fund-raiser.

If, upon self-examination, departmental staff find that their political will remains weak, it is unrealistic to expect that schools and districts will initiate coordinated change, although they may respond to felt needs as did school F1 regarding changes in foods, and school F3 regarding the breakfast program. This statement is widely supported by the data, both at the departmental level where an official commented on the negative impact of low political will on implementation, and at the district level, where “wavering” in one district was felt to contribute to inaction by schools. For the situation to improve, departmental staff need to strengthen their political will. This would mean making a commitment to providing a level of support and pressure appropriate to inducing change, maintaining nutrition as at least a moderate priority in the face of other pressures, and recognising that the unique nature of the policy calls for an examination of alternative approaches to implementation. The Department may also want to try to maintain the focus on a comprehensive approach to prevent stakeholders from seizing on a single issue as they did during the first attempt at implementation.

These actions would convey the important message to districts and schools that inaction on their part is not acceptable. This commitment needs to be both verbal and tangible, in the form of resources and other supports. It is unlikely that a nutrition policy, which aims to directly improve the health of students while only indirectly improving educational outcomes, will ever be a top priority for a department of education; nonetheless, the Department must ensure that the policy is not side-tracked by other concerns. Additionally, the Department must recognise that the unique nature of the policy calls for a unique approach to implementation. The data suggest, for example, that departmental staff should not automatically assume that personnel from education and health can work together. Both groups could benefit from taking the time to determine how to collaborate effectively so the role of each group is understood and the lines of communication are clear.

The Department’s will to implement the policy would no doubt be strengthened if politicians were aware that nutrition in schools was an issue which the public supported. Those within the education and health

communities who support the change need to promote the policy within their professional communities and offer public support.

The second effect of the organisational milieu was the peripheral position given to nutrition relative to the main educational role of schools. The result was limited involvement and support from members of the educational community (principals, teachers, parents, and students). This situation had negative repercussions for the promotion of healthy eating. The role of school food services was perceived as being limited to providing a service to users by satisfying perceived customer preferences or as a fundraiser for school programs. Possible links between nutrition education and food services were unexplored; and programs to increase student access to food, if they existed, were isolated from other school programs.

These types of problems were also discussed by Rose and Falconer (1990). They found that school meals meant different things to different people and that because responsibility for meals was divided among departments it received a low priority. Likewise, Mayall, *et al*, (1996) commented on how the organisation of schools did little to promote health, and how the powerless position of students, especially, needed improvement.

Recommendation 3: The Department of Education should work with districts, schools, and other stakeholder groups to re-orient school food services and other school nutrition activities to include a strong educative dimension.

The re-orientation of school food services and nutrition activities has significant implications for schools. While it is true that the policy has more significant implications for health than for education, meeting educational objectives and health promotion objectives is not mutually exclusive. In order for school food services to become a concern of members of the educational community, there must be a reason for them to become involved. The most obvious and appropriate reason is if the food services fulfilled a significant educative function just like other curriculum components. This re-orientation would give members of the educational community a new perspective on the role of nutrition and a greater sense of responsibility regarding the organisation of food services, the delivery of nutrition education, and the organisation of

access to food programs. If education becomes the chief factor on which all nutrition and food service decisions are based, then the role of food as a fundraiser would likely decline if the two goals conflicted. It is noteworthy that in the schools that underwent significant change (D2, F1, and F3) the principal and other members of the educational community became more actively involved in the food-service operations.

The involvement of administrators, teachers, parents, students, and food-service employees in the change process is critical to a successful outcome. It will be in working through the issues, as Fullan (1992) suggests, that a sense of ownership can be fostered. Involvement could occur in a variety of ways. For example, administrators could be encouraged to take a leadership role (as did, for example, the principals at D2, F1, and F3) in addressing all three policy objectives, and to share ideas and experiences with others (as occurred, for example, at the District D focus groups and District F cluster meetings).

Teachers have an important role to play in re-orienting school food services. In order to facilitate change, they could be provided with nutrition education materials that support existing educational objectives, so that the new orientation would require a minimal investment of time. The school results indicated that even though most teachers and food-service employees did not link classroom instruction with food services, they were not opposed to the idea. The need for capacity building in terms of the services themselves is negligible — they already exist, they just need to be utilised. Teachers could also help to see that any access to food programs were coordinated with other school programs.

Another important and currently neglected stakeholder group that could play a valuable role in the overall re-orientation effort is the food-service staff. No staff who were interviewed had received any training related to nutrition education. The food-service manager at F3, the only manager who took an active role in implementing the policy, drew on her knowledge as the mother of a diabetic when deciding which changes to make in her cafeteria. The data from this study, therefore, identify a training gap that could be met with the

cooperation of catering companies. Staff training in nutrition education could be an item negotiated in contract discussions between catering companies and districts or schools.

Parents, too, have an important role to play. Currently, views among stakeholder groups are split regarding whether the influence of parents on their children's nutrition is positive or negative. All agree, however, that parents play an important role in shaping food habits. Schools can recognise and support this role by establishing clear communications with parents and encouraging their involvement in working toward all three policy objectives at school and at home.

Last but not least are students. In the role-play activities in each of the six schools and in the surveys students completed as individuals, students demonstrated their ability to assess the current food services within their schools and to make constructive recommendations for change, although they were not always in favour of actual changes. The students appeared to give an honest appraisal of the situation in their schools unlike some adult participants who might have felt some pressure to show their school in the most positive light. Even these limited data suggest that a significant opportunity awaits teachers and others who are willing to capitalise on it and extend the knowledge base of their students.

11.4 Approach to Policy Development

The opportunity to develop the Food and Nutrition Policy for New Brunswick Schools has passed. Nevertheless it is worth commenting on the development process to consider alternative approaches. The use of a top-down approach by Department of Education staff meant that they did not consult with stakeholders during any stage of the policy development process. The result was that they were unprepared for the concerns raised by stakeholders during implementation.

Recommendation 4: The Department of Education should consult with stakeholders during the policy development process to assess existing levels of capacity and will and to use this information to plan required supports and pressures for implementation.

This recommendation reflects the statement by Elmore and McLaughlin (1988) that the involvement of teachers, and in this case other stakeholders, in the process, has to be regarded as imperative. It also reflects a more health-promoting approach to the policy development process. The recommendation is supported by results from this research which show that when stakeholders were involved in the implementation process, positive change was more likely. For example, the principal at D2, after actively participating in focus groups and information-gathering activities at the district level, organised similar events in his school — and felt very positive about the process and outcomes.

An alternative approach to policy development might have unfolded as follows. The Department could have convened a provincial committee of district nutrition representatives early in the policy development process rather than waiting until implementation. This committee, working with the Department could then have assessed existing levels of capacity and will at the district and school level. This would have helped committee members learn about the role of foods in school, stakeholders' ideas and concerns about changing current practices, possible policy options, perspectives on the priority of nutrition relative to other education priorities, and unique aspects of the issue.

The provincial committee could have used the results of such an assessment to help guide policy formulation and to assess overall existing levels of capacity and will. The Department could use the policy formulation process to build support for change by stressing the potential education-related benefits. The consultation process would also permit information to be collected about existing positive practices that the Department and districts could later use as practical examples during implementation. By fostering ownership in the process, the Department could begin to create peer pressure to help broaden the base of support for change. The policy developed by consultative processes may not be the same as one developed using the top-down process; and the Department must be prepared to accept the resulting policy.

The proposed consultative process could also have helped the provincial committee lay the groundwork for the policy implementation process. They could use the results of the assessment, for example to estimate pre-existing levels of capacity, which could help them decide which combination of supports and pressures to use during implementation. Figure 11.2 is derived from results reported in Chapters 9 and 10 and shows that capacity and will are related.

Figure 11.2 Capacity, Will, and Implementation

	(+) Capacity	(-) Capacity
(+) Will	<div>(+) Capacity (+) Will</div> <div>Implementation is facilitated (e.g., F1, F3)</div>	<div>(-) Capacity (+) Will</div> <div>Implementation requires some support, e.g., training, time, or money (e.g., D2)</div>
(-) Will	<div>(+) Capacity (-) Will</div> <div>Implementation requires a change in attitude, e.g., by involving stakeholders in the change process (e.g., D1, F2)</div>	<div>(-) Capacity (-) Will</div> <div>Implementation is unlikely without significant support and pressure (e.g., F4)</div>

In schools where capacity and will are both positive, implementation would be easily facilitated. In schools where will is positive but capacity is negative, the strong desire to implement a policy increases commitment to find the capacity needed for change. Changing capacity may call for creative problem-solving or in-service training for teachers and food-service staff. School D2, for example, probably faced the biggest capacity challenge of the six schools, given that the students were older (15-18 years) and that the school is located very close to numerous food outlets. Yet, because the

principal was willing to take a strong leadership role, significant change occurred.

In schools where capacity is positive but will is negative, the challenges to implementation increase because although the ability to change is present the desire to change is not. Implementation in such cases requires a change in stakeholder's attitudes which could be accomplished through involving them early in the change process. If both will and capacity are negative, implementation will be very challenging. For example, although school F4 faced less of a capacity challenge than D2, the negative will of the principal and acting principal resulted in policy inaction.

11.5 Approach to Policy Implementation

The analysis of the implementation of the Food and Nutrition Policy for New Brunswick Schools showed that the Department's approach to implementation had a generally negative effect on stakeholder will to implement the policy. During implementation, the departmental committee attempted to continue the top-down approach that it used during policy development. Many stakeholders resented this approach. At first, they actively resisted the policy, and later they evaded implementation by becoming inactive. The developers of the policy believed in the "power" of the policy; however, the policy proved to be weaker than the opposition.

It could be argued, as did the nutrition representative who retired from District F, that the top-down approach might have succeeded had implementation been allotted more resources, required more accountability from districts and schools, and if those responsible for implementation had been given more authority. An intensification of the top-down approach is not what is recommended here. Other models exist within education (see McLaughlin & Elmore, 1988; Owens, 1998) that rely on principles of participation and collaboration throughout the policy process. Such principles correspond well with a healthy public policy approach and serve the goal of empowering participants.

Recommendation 5: The Department of Education should implement a clarified Food and Nutrition Policy for New Brunswick Schools in all schools using a collaborative and participative approach that emphasises supports but includes sufficient pressure to initiate and maintain change.

This research points to a number of items for the Department to consider as it formulates an alternative approach to implementation. First, data from this study, in which none of the schools implemented the policy as written, indicate that trying to improve conditions by forcing schools to do so is unrealistic, at least in the short term, and likely to be counter-productive. There is considerable discrepancy between the present reality in most schools and the way food services, nutrition education, and access to food would be organised if the policy as written were fully implemented. Trying to force schools to go directly from their current situation to full policy implementation is likely to rekindle animosity toward the policy. A balance must be struck between not being so complacent that current inaction continues, and not being so forceful that resentment is created. It is important to remember the caution by Schmid, Pratt, and Howze (1995) regarding the fact that forcefully mandated change is less likely to succeed than participatory change. One strategy is to initially focus on schools that are more receptive to implementation. The school data indicate that wide variability among schools exists even within the same district. By focussing on schools in which will is positive (or at least not negative), such as elementary schools which generally have closer school-home ties, the process of implementation would be easier and change more likely. Change in these schools can then serve as real-life examples of the change process when all schools are targeted for change. This approach is similar to the approach proposed by Fullan (1992) regarding the introduction of micro-computers in schools.

Second, at some point, the Department must decide whether the policy will be revised or left as written. The departmental employee who is now responsible for the policy is reluctant to change it because of the extensive process involved (B. Lydon, personal communication, 1998). Nevertheless, the confusion surrounding the interpretation of the policy is counter-productive to implementation. One strategy would be to produce guidelines that could

serve as a proxy for the policy and would address outstanding stakeholder concerns and provide clear directions for action.

Third, a participatory approach seems most appropriate for implementing the nutrition policy. The school profiles showed that it is not appropriate for schools to leave the responsibility for implementation exclusively to the food companies, as the principals at D1 and F4 wished. Their decisions are guided more by a desire to offer a service and business pressures than the goal of improving the nutritional well-being of children. The statement by McLaughlin and Elmore (1988) about the importance of front-line involvement in the development and implementation of all educational policies rings especially true in this case. Nutrition is not perceived as central to the role of most educators nor is it a familiar area for most members of the educational community. Involvement, therefore, is needed to increase their knowledge of the subject, help them identify educational connections between nutrition and other aspects of their work, create ownership for the topic, and increase the value attached to it.

The guidelines for implementation described in the conceptual framework (Hord, 1995) show how support and pressure can be combined to help achieve implementation. The premise is that ongoing collaboration and participation at all stages of implementation will help create support and provide pressure to initiate and maintain change. Reality dictates, however, that the approach must be formulated with the knowledge that schools are likely to give only a small amount of time to deal with nutritional concerns. Hord's (1995) guidelines are: (a) develop a vision, (b) plan and provide resources, (c) invest in continuous staff development, (d) assess progress, (e) provide ongoing assistance, and (f) create an atmosphere for change. Suggestions for each of these guidelines follow.

11.5.1 Develop a vision

Based on the review of the policy process and the school profiles, no clear or shared vision regarding the Food and Nutrition Policy for New Brunswick Schools at the departmental, district, or school level was identified.

The lack of a shared vision contributed to confusion about the nature of the policy, a serious barrier to implementation. This problem could be alleviated if the Department, in collaboration with the provincial committee of district nutrition representatives, established short- and long-term objectives for implementation. It could also help raise the profile of nutrition with educational endeavours and be used as a means to encourage public support for change. The Department would then need to be prepared to match these objectives with the level of support and pressure required for implementation.

Broad participation in the process of creating a vision and clarifying the nature of the policy would help create support for it, especially when the creators of the vision see it in use. The process also helps create pressure. Those who participate in such a process would not easily be able to reject something they helped create. Moreover, a clear vision would make it more difficult for stakeholders to say they do not understand the policy.

11.5.2 Plan and provide resources

The second guideline is to formulate a plan and find the resources required to implement the policy. Since schools are the unit of change, they must play a central role in the planning process. While districts can directly facilitate the process (e.g., the information-gathering activities carried out by District D and the cluster meetings that resulted in school plans to promote healthy eating in District F), the Department can play a supportive role. In formulating their plans, districts and schools can be encouraged to learn from the experiences of others, a process that could be co-ordinated by the Department. The process of sharing information would alert schools to the fact that implementation efforts are being made in all districts across the province, which would alleviate the concern about inconsistent implementation raised during some of the interviews. The findings from this research, for example, indicate that the following strategies can facilitate implementation.

1. Implement significant changes (e.g., the removal of certain food items) during school vacations (e.g., summer or Christmas) when they are less

likely to be noticed. F1 and F3, for example, specified that they made their changes during the summer.

2. Implement change gradually. As a first step, the school may want to select a change that is not likely to be controversial, is tangible, and can be achieved within a relatively short time. Success with this change can increase the confidence levels required to tackle more difficult changes. Districts D and F, for example, both chose to implement the policy gradually.

The supports that are required to increase capacity include money, information, training, and time, especially time for re-orienting the organisational milieu. A significant resource for schools could be a manual providing guidelines on implementation containing: the provincial vision for school nutrition, short- and long-term objectives for implementation, clarification of the nature of the policy, resolution to outstanding policy issues, suggestions and ideas for change, and a discussion of implementation strategies. Examples from schools which have changed could be used to make the process more concrete for those who have not, and to give some recognition to local achievements. The review of the interventions in Chapter 3 indicated that resources have already been developed in other jurisdictions which could be used to support implementation. These would warrant review to determine if any could be adapted to New Brunswick's needs. Likewise, given the significant consumption of milk at subsidised prices, the Department may wish to investigate the possibility of partnering with other commodity groups like vegetable and fruit growers to develop a similar program.

Pressure is another important consideration. District D, for example, tied the disbursements of Nutrition Excellence funds to policy implementation. The Department might consider a similar strategy although if increasing access to food for students is a low school priority, it may not prove much of an incentive. Incorporating a system of monitoring into the planning process is an additional potential source of pressure.

11.5.3 Invest in continuous staff development

Without continuous staff development, the organisational milieu of schools will not change to embrace a more educative role in relation to nutrition. Sustained change will only occur when members of the educational community and food-service personnel are able to take a more active role in nutrition-related activities, begin to attach greater importance to it, and find it intrinsically rewarding to maintain their actions.

In some cases, staff development may be used as a support and presented as an option (e.g., attendance at a session on nutrition during a professional development conference). In other cases, it may be used as a pressure and presented as a requirement (e.g., participation at the cluster meetings in District F was mandatory).

11.5.4 Assess progress

Assessing progress towards implementation is an especially important component of implementation. Because the connections between education and nutrition are indirect, the benefits of change may not be obvious without monitoring educational indicators that are meaningful to educators. Indicators of both process and outcome should be collected and should include markers of capacity and will. Specific markers of capacity include the quality of food services available to students, the resources allocated to nutrition education, and the availability of access to food programs. Indicators of will include the level of stakeholder involvement in the change process, the number of obstacles to change that are raised, and the number of complaints or compliments received about changes.

Outcome indicators can be formulated with regard to the overall goal of the policy: the effect of change on the nutritional well-being of children, and the effect on academic achievement, student behaviour, and student absenteeism. Indicators can also be formulated with regard to each objective of the policy, such as the degree to which: food-services offer nutritional foods to students, classroom nutrition education is linked with school food services, and students have access to food in schools. Additional outcome

indicators include the extent to which food services become re-oriented to performing an educative function and participants feel personally rewarded as a result of their involvement.

Both quantitative and qualitative data can be collected. Personal visits from Department and district staff are an important way to show support for the change while also serving as a form of pressure by demonstrating commitment to the change. The principal at F3, for example, mentioned that my occasional visits helped keep the school on track. Districts and the Department can facilitate the assessment process by creating standardised forms that can assist with data collection and provide the school with a self-assessment tool.

11.5.5 Provide ongoing assistance

Until the promotion of healthy eating is accepted as integral to the primary role of schools, implementation will be at risk. This highlights the importance of providing schools with the ongoing assistance they need until the policy is implemented in all schools. Assistance could be in the form of time, resources, information, and opportunities for stakeholders to practice new strategies and share experiences, ideas, and concerns. The results from this research, for example, showed that good ideas are already in use, but are often restricted to the school where they originate. Ongoing assistance will not only indicate to stakeholders that their efforts are worthwhile and are valued but that change is still a departmental priority.

As new milestones are reached, schools can be encouraged to celebrate their success. Districts or the Department can also recognise school accomplishments. District F, for example is planning to establish an award program for schools. Once schools achieve implementation, periodic assessments will indicate whether the policy continues to be implemented although direct assistance has ceased.

11.5.6 Create an atmosphere for change

Changes to school nutrition are more likely to succeed in schools that have created a positive atmosphere for change. Findings from this research yielded two important examples of factors that influenced change. First, in all six schools, the principal was a key influence in whether or not change occurred. Second, where the greatest positive change occurred (D2, F1, and F3), ongoing communication between the principal and other stakeholders, particularly food-service personnel, was an important part of the process.

11.6 Implications for Educators and Health Promoters

The recommendations for policy implementation have implications for both educators and health promoters. For educators, the recommendations indicate a possible future direction for nutrition in schools. The research indicates that nutrition education and food services need to be updated if schools are to help students understand and deal with the pace of change in eating patterns and the increasing complexity of the food supply.

The research findings highlight an ongoing discussion among educators over the role of schools in society and the relationships between homes and schools. Some educators, such as the teacher at D1 and the principal at F2, questioned where the responsibilities of schools end and the responsibilities of parents begin in terms of trying to address societal concerns. Others, such as the principal at D2 and a teacher at F3, felt that teachers must be concerned about educating the whole child and saw the importance of nutrition within that context. At the same time, educators, must be careful not to contradict their own rhetoric. For example, it is inconsistent to say that the responsibility for food provision does not rest with schools, then contract with fast-food restaurants to sell food to children on a daily basis.

At the same time, the research demonstrates that health promoters cannot assume that educators will make significant nutritional changes in schools solely for health reasons. Health promoters must be sensitive to the fact that educators hold multiple responsibilities and work under considerable pressure. Health promoters can improve the status of health by involving

educators in the change process and by connecting nutrition with outcomes educators find meaningful. A policy may be an effective tool, but only if it is applied with sensitivity in the context of existing conditions.

The New Brunswick findings show that more can be achieved through the collaboration of educators and health promoters than through independent actions. Each has knowledge and experience that can benefit the other. In District F, for example, I, as a health promoter, worked closely with the District nutrition representative, an educator. I brought subject matter expertise he did not have. He was privy to administrative discussions that I was not. He provided me with entry into schools. I provided him with the resulting data. We discussed ideas with each other before taking them to other district staff. Our partnership worked because neither of us began by thinking that we had all the answers; and both of us were committed to making the project work and were flexible when unanticipated events occurred.

The recommendations for implementation are not without precedent. Interventions, such as those conducted in CATCH (Resnicow, Robinson, & Frank, 1996) and by USDA Team Nutrition (Kennedy, 1996), included considerable more supports than were used in the initial implementation of the Food and Nutrition Policy for New Brunswick Schools. In both of these successful interventions, teachers and food-service personnel, for example, received training and resources, and information was shared among groups.

11.7 Outstanding Issues and Research Reflections

While this research provided much information that could assist with promoting healthy eating in schools, it also identified four outstanding issues. First, the number of students who said they had not eaten before school when surveyed, 29%, was high and should be investigated further to determine if it is representative. The three other issues relate to the Department of Education's overall intentions regarding health promotion in schools, concerns about the nature of the relationship between education and health promotion, and future approaches to research on school nutrition policies. These will be discussed in

greater detail. As well, while not an issue per se, the completion of the research serves as a useful basis for professional reflection.

11.7.1 Issues

This research provides information that could be used by the New Brunswick Department of Education to review its intentions regarding health promotion in schools. A recent publication of the Department (NB Department of Education, 1999b) states that the new K-8 Health Curriculum follows the Comprehensive School Health model as the framework for health education. Under this model, classroom teaching, school services, and the school environment are coordinated to promote health. The objectives of the Food and Nutrition Policy for New Brunswick Schools also have a contribution to make in these three areas. The Department needs to recognise the connections between the health curriculum and the policy and to convey this message to districts and schools. This action would help stakeholders to recognise how the policy can be made more integral to the education of students.

Another concern is the relationship between education and health promotion in implementing policy and the degree to which implementation approaches in education and health promotion complement each other. This research found that the participatory and collaborative approach used by Districts D and F and by some schools (e.g., D2 and F1) reflected an approach recommended by researchers in both fields — by McLaughlin (1987) in education, and by Allison *et al* (1988) in health promotion. A common base, therefore, already exists from which educators and health promoters can expand their efforts. Areas for future consideration include strengthening the degree to which the other health promotion principles of comprehensiveness and equity are addressed within education and paying closer attention to the effect of the process on stakeholders.

In this research, comprehensiveness and equity were not identified as major considerations by stakeholders. The challenge to health promoters is to

work with educators to identify such connections. Greater attention to the policy process is also warranted. Although the intent of the research design was to be participative and collaborative to reflect the health-promoting nature of the inquiry, no formal measures were taken to assess the actual impact of this design. Measures to do so would have enriched the research. Interview results did indicate how people felt about being part of the original implementation process. While a number of district staff, principals, and teachers who took an active role in the process, commented positively on their involvement, comments by or about students, were often negative. Students indicated that they felt denied because their right of choice had been removed. In the future, greater care must be taken to ensure a more positive process outcome for students, for example, by involving them more in the change process through their participation in nutrition education activities.

The recommendations in this chapter are based on a mixed-scanning approach, in which the “top” instigates the change, but local level participation is encouraged. For this reason, they run the risk of having members of the educational community perceive that they are being “done to” rather than “doing with”, as encouraged in healthy public policy. While it would be most desirable if schools recognised nutrition as an important issue and organised themselves to address it, the likely reality is that more pressing priorities will frequently prevent nutrition from making it to the action agenda. A mixed-scanning approach can be appropriately modified by offering stakeholders at the local level many opportunities for meaningful involvement as possible.

A final issue is future approaches to research on school nutrition policies. The recommendations in this chapter lend themselves to an action research approach. If this were undertaken, it would be desirable to monitor the process associated with it. Future research therefore, could be used to determine if this alternative process were received more positively, to assess if the outcomes of the process led to a greater fulfilment of the policy objectives, and to an identification of the factors that influenced the process.

11.7.2 Reflections

The end of a large research project such as this has encouraged me to reflect on my professional beliefs and goals related to using policy as a mechanism to promote health in schools, and on the methods used in the research. Throughout this thesis, an important underlying assumption has been that students' health is best supported when school food environments are organised to help students make healthy choices. The concept of "choice" reflects the belief that students should be given the opportunity to practice their decision-making skills by selecting from a wide variety of foods whereas the term "healthy choice" restricts those decisions to choices among healthy foods. In England and Wales, the question of "choice" takes on greater significance, as it is highly politicised within the field of education. This has largely resulted from the government's policy of letting parents choose where their children attend school.

Given that the "healthy choice" approach is widely accepted within health promotion, my assumption regarding school food environments is not surprising. As a researcher, however, I have a responsibility to try to see my work within a larger context and to force myself to question my assumptions and their origins. To do this, it is important to examine the term "healthy choice" more closely.

Support for the healthy choice approach originates from a number of sources. Empirical studies have found that children make more nutritious selections when their choices are limited to healthier foods (e.g., Burghardt and Devaney, 1995a; Lytle, *et al.*, 1996). As well, many health educators believe that the messages students receive in classrooms should be reinforced by the services provided by their school. Many nutritionists believe that the healthy choice approach is an important means by which to foster healthy eating patterns from an early age and to thereby promote lifelong healthy eating. Some maintain that this approach still allows for choice, since students are able to choose among a variety of healthy foods or to choose alternative means of providing food for themselves (e.g., by purchasing food elsewhere). Others

argue that since students' choices are limited in other aspects of their lives, why not food?

Those who support a “student choice” approach, wherein students are given a wide range of foods that includes both healthy and less healthy selections and are allowed to choose from among them, also have reasons for their views. Some support the principle of individual rights and freedoms, believing that individuals should be allowed to make their own decisions. Some believe that students receive a better education in terms of being prepared for the “real world” when they have to decide among a variety of food items. Others, who are often in the food business, want to retain customers and believe that to do so, they need to provide choices that reflect customer preferences. The latter group's interpretation of choice appears to be that, because there are no bad foods, an opinion supported by *Canada's Food Guide to Healthy Eating*, there is relatively little need to distinguish between different types of food. Food services can offer children a bit of everything equally and let them make their own choice.

The basic disagreement between the “healthy choice” and “student choice” positions can be summarised as follows. Supporters of healthy choice believe the most appropriate intervention is to design students' food environments to guide their food decisions. Supporters of student choice believe that the most appropriate intervention is to educate the children about health and nutrition and then allow them to decide for themselves.

Because I support the goal of promoting healthy eating decisions by students, I see opportunities to use both environmental and educational interventions. I believe that schools, as educational institutions, have some responsibility to try to help students develop their enjoyment of eating healthy foods. I would like students to develop an appreciation of the tastes, textures, colours, and cultural history of a variety of foods that contribute to a healthy diet. I think it is important that students are educated regarding the influence of their eating environments on their food habits.

I believe that offering primarily healthy foods to students under the auspices of a policy is likely to achieve the desired *outcome* of positively

affecting student consumption of healthy foods. The problem is that in doing so, the students become passive recipients of other peoples' decisions, and so the *process* does little to enable them to increase control over their own lives, a key component of health promotion.

The approach that I am currently investigating for future work attends to both process and outcomes. It centres on using education to encourage students to study the effect of their environments on their food choices. Through health education and the use of integrated learning from other subject areas, students could assess and examine their eating environments. They could learn about and discuss eating decisions made by individuals within these environments and the relationship between these decisions and the quality of an overall diet. As part of the process, students could be encouraged to expand their thinking beyond the "healthy – unhealthy food" dichotomy to analyse the presentation of food, and its taste, freshness, cultural and social meanings, and safety. It is impossible to predict if this approach would instill a desire within students to re-shape their environments to promote health: the *process* might be enabling because it gives students insights into decision-making processes and the potential to change their situations, but the *outcomes* are harder to predict. Students, for example, may conclude they are satisfied with their current situation, or they may feel that "access to food" is a more pressing issue than the "nutritional quality of food." Schools would need to be prepared to help students deal with the areas of concern they identify.

This approach, however, means that someone in authority is still guiding the students; the issue is not originating with them. Given the relative powerlessness of students within schools, I do not think it is likely they would initiate changes to school foods and nutrition. Once they are given some decision-making power, observing how they handle it will be interesting. Important pre-conditions for such a project include the willingness of all involved to undertake the project and to work through the process.

I recognise that in reflecting on this research and on my views regarding nutrition policies in schools, I have retained many of my basic beliefs. I see, however, that I am now more explicitly aware of the nature of

those beliefs and how they shape my actions. The major benefit to me, therefore, is that in future I will be more questioning of my approach to health promotion. This finding may be instructive to other health promoters who decide to conduct research in an area where they have a strong personal commitment.

In addition to promoting professional reflection, the methods used in the research itself have been cause for reflection. Two issues are: (1) the meaning of policy silences and the importance of attending to them, and (2) the need for health promoters to be aware of the potential influence of stakeholders' personal beliefs on their actions, especially the beliefs of those with power.

With regard to the first issue, the New Brunswick case demonstrated the potential pitfalls for a school nutrition policy and the need to pay attention to policy silences -- what does not happen -- during policy development. For example, given the degree of controversy generated by the policy during implementation, one might ask how the provincial nutrition committee -- the two home economics consultants and the senior nutrition consultant -- could have failed to be aware of the problems in advance.

A number of factors influenced the situation. First, none of the committee members held positions of power within their respective government departments. Second, none of them had prior experience in policy development or implementation. Third, none had any direct responsibilities regarding school food services prior to the development of the policy. Fourth, few of their job responsibilities were school-based which meant they spent relatively little time in schools. Finally, because they were in agreement about the importance of promoting health through policy, none of them questioned the need for the policy, nor, because they did not consult outside the department, was the need questioned by others.

Once the committee members helped place nutrition on the political agenda and were given the power to develop the policy, they felt they had overcome all the necessary hurdles. They felt vindicated; the importance of their work had finally been recognised. And, once there was a policy, schools

would be forced to pay attention to nutrition and to make changes that had been avoided in the past.

The committee members were confident in their beliefs because they witnessed the power of policy to enact change in other aspects of the province's educational endeavours. As well, the lack of involvement of district or school level stakeholders was not considered problematic because the department did not typically involve such groups in policy development. Thus, the nutrition committee members never considered that the marginal nature of the nutrition policy might result in it being treated differently from other policies. This, despite the fact that they were told at the outset that the policy was to have neither financial nor curriculum implications.

Sadly for their good intentions, the committee mis-judged the situation. Given all the controversy regarding fund-raising and other issues generated during the initial attempt to implement the policy, the Department decided it was better to disappoint a few home economists and dietitians than continue to upset a wide cross-section of school personnel, catering companies, and food companies, some of whom wielded considerable political power.

This example illustrates the importance that apparent policy "silences" may conceal actions that, in the end, have an important effect on the policy process. In this case, it would be erroneous to conclude that the policy development process was successful because there was no controversy associated with it. Rather, the mistaken assumptions by the nutrition committee in the policy development stage had a significant negative influence on subsequent implementation.

The second methods-related issue pertains to the influence of personal beliefs on policy implementation, especially the beliefs of those with power. This research showed, for example, the key roles that principals played in whether or not schools took any steps to implement the policy. The principals in the schools where the most change occurred -- D2, F1, and F3 -- took strong leadership roles. They developed closer ties with food-service personnel, they often took responsibility for ensuring communication amongst the various stakeholder groups, and they were members of district nutrition committees.

In schools D1 and F2, where some change occurred, the principals at least did not actively oppose the policy, as was the case in school F4, where virtually no change occurred.

The principals' stated reasons for making the changes centred on their professional support for good nutrition or their obligation to implement policy. In exploring their motivation further, however, it also appears that their personal agendas or privately held beliefs were influential. For example, in two of the three schools that made the greatest changes, the principals had experienced health problems that necessitated dietary changes. While this does not prove a causal link, it does suggest that the area is worth investigating. People are more likely to change when they feel a personal connection with the change. For this particular policy, given the unique relationship between individuals and food, the influence of personal beliefs could manifest itself in various ways. One clue to personal beliefs that researchers may find useful is the individual's use of personal or family examples. At first, as an interviewer, I was a bit impatient when principals and other participants started telling me their "nutrition story" because I felt it was a digression. Fortunately, I quickly realised that the stories gave me insights into the ways in which participants connected with food and nutrition at a personal level. This aspect of my research served as an important reminder, not only of the potential significance of people's personal beliefs, but also of the importance of valuing the variety of different types of information provided by participants.

Thus, this research has identified a number of unresolved issues which warrant future work. These include: investigating the high levels of breakfast-skipping revealed in the research, encouraging the Department of Education to connect its new health curriculum with the nutrition policy, continuing to seek participative and collaborative approaches to promoting health that complement both education and health, and investigating the usefulness of employing action research methods in future research. As well, through reflecting on the research, I am now more aware of the importance of examining my own work within a larger context so that I question the

assumptions that guide both my professional actions and the actions of others in my field. I am also aware of the benefits of studying policy silences for the useful information they might yield, and the importance of examining how the personal beliefs of participants affect their policy-related actions.

11.8 Summary

This research addressed three questions.

1. How did the process pertaining to the Food and Nutrition Policy for New Brunswick Schools unfold?
2. Why did implementation occur as it did and what factors influenced the process?
3. What can be learned from the experience to guide future actions?

The Department of Education used a top-down approach to policy development that saw the Food and Nutrition Policy for New Brunswick Schools move easily through the stages of initiation, formulation, and adoption. Once implementation was reached, opposition to the policy played havoc with the Department's preferred approach.

Four key factors influenced the implementation of the Food and Nutrition Policy for New Brunswick Schools. The nature of the policy had a negative impact on the will and the perceived capacity of stakeholders to implement the policy because of its implications for fund-raising for schools, because stakeholders disagreed with its philosophy regarding student choice, and because nutrition was a low priority for many schools. The organisational milieu had a negative impact on capacity and will because the Department's will to implement the policy was low and school food services, for the most part, were isolated from the educative function of the school. The approach to policy development had little impact on capacity or will because there was minimal consultation with stakeholders throughout the process. Thus it can be seen as a missed opportunity for strengthening capacity and will. Finally the approach to policy implementation had a negative impact on will. Stakeholders resented the top-down approach to implementation and the fact that resources were allocated to improve student access to food when funds

were reduced in areas considered to be more directly connected with student learning. While the allocation of resources did not increase will to implement the overall policy, it did assist with meeting the access to food objective.

The results from six schools in two districts that actively implemented the policy showed that the results were not all bleak. Both districts used participatory approaches to encourage implementation. Three schools made strong attempts to improve the nutritional quality of foods offered, two schools made a moderate attempt, and one school made no attempt. Only one of the six schools changed their nutrition education as a result of the policy. On the other hand, all six schools offered students the provincial milk program, which was intended to increase student access to food. In addition, one school began a breakfast program for students, although this program was implemented as the result of perceived need and not because of the policy.

The factors that contributed to increased capacity at the local level, included funds for purchasing the equipment required for the milk program and for access to food programs; the subsidised price of milk; the ability to solicit support, both financial, in-kind, and volunteer, from other sources to run food programs; and the ability to access the expertise of a nutrition consultant and various stakeholder groups related to the policy objectives.

Changing will, as McLaughlin (1987) states, is more challenging than changing capacity. Although this research did not yield a clear answer regarding how to create will, the results indicate the importance of involving stakeholders in the process of change. Other contributors to will were the leadership from principals, as well as support from principals and other stakeholders either because they valued the change, perceived a need, considered it a job responsibility, or (in the case of food-service companies) saw it as a business obligation.

Five recommendations for the New Brunswick Department of Education that could further increase capacity and will to implement the Food and Nutrition Policy for New Brunswick Schools emerge from the research. It is recommended that the Department of Education should:

1. Address all three of the policy objectives, clarify the nature of the policy with stakeholders, and address stakeholder concerns about fund-raising and student choice. This process would allow the Department to:
 - adopt a comprehensive approach to implementation;
 - resolve outstanding issues regarding the promotion of healthy eating;
 - address concerns about fund-raising and student choice by encouraging involvement in the process and by using data obtained directly from schools;
 - compile a K-12 behaviourally-oriented curriculum with suggestions for teaching nutrition using a coordinated approach; and
 - integrate access to food programs with other school activities.
2. Recognise the leadership role it plays in policy implementation and demonstrate the political will needed to create change. This recognition would allow the Department to:
 - provide an appropriate level of support and pressure needed for change;
 - maintain nutrition as at least a moderate priority in the face of other pressures; and
 - recognise that the unique nature of the policy calls for an examination of alternative approaches to implementation.
3. Work with districts, schools, and other stakeholder groups to re-orient school food services and other school nutrition activities to include a strong educative dimension. Such collaborative efforts would allow the Department to:
 - provide support and training when needed to administrators, teachers, students, food-service staff, and parents during the policy implementation process;
4. Consult with stakeholders during the policy development process to assess existing levels of capacity and will and to use this information to plan required supports and pressures for implementation. Such consultative efforts would allow the Department to:

- use an assessment of pre-existing capacity and will to help formulate policy and assist with decisions about implementation.
5. Implement a clarified Food and Nutrition Policy for New Brunswick Schools in all schools using a collaborative and participative approach that emphasises supports but includes sufficient pressure to initiate and maintain change. Such an approach would allow the Department to:
- develop a provincial vision for nutrition in New Brunswick schools;
 - develop interim guidelines for implementation;
 - invest in staff development to help re-orient the organisational milieu so that it becomes more supportive of nutrition;
 - assess progress using indicators meaningful to educators;
 - provide ongoing assistance that encourages a process of sharing; and
 - remember the important role played by the principal and the importance of clear communications among stakeholders.

This research has contributed to a clearer understanding of the policy process associated with the Food and Nutrition Policy for New Brunswick Schools, identified key factors that influenced implementation, and recommended future actions to enhance implementation. The study looked backwards to examine the policy development and implementation process and followed ongoing events in order to analyse what happened during the implementation of the policy. It provided a close-up view of the inter-section of education and health promotion in a practical setting. In doing so, the results confirmed much of McLaughlin's (1987) work as well as confirming views of health-promoters:

- stakeholders need to be an integral part of both the policy development and implementation process;
- much can be learned from combining a macro-level examination with studies of local variability to provide valuable insights into the process;
- will and capacity are important, inter-related influences on implementation; and

- both process and outcomes are important considerations in policy implementation.

The research offers glimpses of the potential changes that are possible when there is sufficient capacity and will to change. Children did make healthier food choices when supported by the school environment. Nutrition education was reported to have a positive influence on eating habits when it was behaviourally oriented, and students responded positively to an opportunity that allowed them to access foods. The continuing challenge is to identify approaches that will enable all schools to proudly proclaim: “Dans notre école, ce sont les enfants qui profitent [In our school, it’s the children who profit]” (Field note, comment from a cafeteria manager at a Francophone school, 1997).

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Appendix A
Food and Nutrition Policy
for
New Brunswick Schools
February, 1991

Introduction

School students have been identified as a key target in the New Brunswick government's Health Promotion and Education program. The government's overall vision of health is one in which people will live longer in good health with fewer illnesses and disabilities, empowered to reach their full potential. The relationship between nutrition and health has been studied extensively; it is well accepted that the health of individuals is significantly influenced by their food habits. In 1990, Health and Welfare Canada published nutrition recommendations for the public aimed at promoting and maintaining health while reducing the risk of nutrition-related diseases. Canada's Guidelines for Healthy Eating are part of these recommendations and are intended to be the key nutrition message for all healthy Canadians.

Nationally there is recognition of the important role of public schools in implementing these guidelines. It is recommended that coordinated comprehensive food and nutrition provincial policies be initiated to ensure that foods served in Canadian schools are consistent with Canada's Guidelines for Healthy Eating.

The Department of Education recognizes the importance of the early school years as an appropriate setting for helping students establish the basis for lifelong healthy eating habits that will contribute to overall good health. To this end, the Department of Education undertook a review of the food and nutrition policies and practices in New Brunswick schools in July 1990, the results of which formed the proposed policy.

Rationale

The mission of the Food and Nutrition Policy is to contribute to the health and well-being of New Brunswick school students by developing healthful eating habits through education and to do so in an economically, socially and environmentally responsible manner.

Canada's Guidelines for Healthy Eating were chosen as the basis for the food and nutrition policy because they:

- can provide students with a sound basis for lifelong eating habits,
- may have a positive impact on overall school performance, and
- can help address some of the nutrition problems that have been identified among school students.

Nutrition education is an important component of the policy as the cafeteria and classroom can be effective partners in a multi-disciplinary approach to education. The school food program must serve as an extension of the classroom. Evaluations of nutrition education programs have shown they can be effective in increasing nutrition knowledge, developing positive attitudes about nutrition and increasing consumption of nutritious foods.

Goal

The policy is intended to set out guidelines for school districts to implement a coordinated comprehensive food and nutrition policy that encourages all students to develop good eating habits by providing food services that feature nutrition foods, and nutrition education programs and activities.

Definitions

Food services include foods served in cafeterias, canteens, vending machines, hot lunch programs, food supplement programs and other food related activities on all school days.

Nutritious foods include only those foods from the four food groups of Canada's Food Guide and Canada's Guidelines for Healthy Eating.

Nutrition education is the process of teaching validated, current nutrition knowledge in ways that promote the development and maintenance of positive attitudes and habits of eating nutritious food.

Objective 1

All School Food Services will follow Canada's Guidelines for Healthy Eating in order to ensure the nutritional needs of students are met, and will promote the development of healthy eating practices in a manner that provides a positive contribution to the emotional, social and educational development of students.

Objective 2

All school districts will provide nutrition education through school food programs and classroom activities in order to positively influence students' nutrition knowledge, attitudes and eating habits.

Objective 3

All school districts will ensure all students have access to nutritious food during the school day.

Implementation

Guidelines for Healthy Eating

All school food services will provide and emphasize

- a variety of foods from the four food groups
- whole grain cereals, breads and other grain products
- vegetables and fruits
- lower fat dairy products and leaner meats
- foods prepared with little or no fat
- food items low in salt and caffeine
- foods that consider students' caloric needs and help achieve and maintain a health body weight.

In addition, low sugar foods should be emphasized. Milk and fruit juices should be the sole beverages. Food Services should not provide students with items such as fruit drinks, soft drinks, candy, chips, chocolate bars, deep fried foods, doughnuts and other foods high in fat, sugar and/or salt.

School food services should be organized to allow students to make choices regarding food selection in order to provide a positive contribution to the development of healthy food habits.

Promotion

On an ongoing basis all school food programs will

- ensure that the school food services program are an extension of the classroom and complement the classroom nutrition education experiences of the students
- include nutrition education activities

Food Security

School districts will ensure that all schools strive to

- develop and implement a plan to provide food for students who arrive at school without food or the means to purchase food
- offer the opportunity for students to buy milk at wholesale cost or less

Administration of the Policy

The responsibility for administering the policy rests with the districts. As such, they will be responsible for the implementation of the policy, its efficient administration, operation and control. The Department of Education, in cooperation with the Department of Health and Community Services and other departments, will facilitate the efforts of the districts.

The Food and Nutrition policy also includes the following principles:

- to provide food programs that satisfy the client group and encourage community support
- to provide sanitary and safe conditions for food preparation and eating
- to provide a pleasant environment for eating
- to operate food programs in an environmentally responsible manner
- to operate food programs on the basis of purchasing New Brunswick products first where possible
- to organize school district resources, such as food service personnel and food facilities, efficiently
- to provide food at an affordable cost to students and to utilize sound financial practices in order to be self-supporting.

Conclusion

This comprehensive policy offers a new perspective on the delivery of present food and nutrition services and programs. It represents an effort to coordinate school food services in a manner that will provide a direct benefit to the health of students.

Appendix B

Data Gathering Instruments

1. Letter of Consent
2. Interview Guide for Departmental Employee
3. Interview Guide for District Nutrition Representative
4. Interview Guide for School Principal
5. Interview Guide for Teachers
6. Interview Guide for Students
7. Interview Guide for Parents
8. Interview Guide for Cafeteria Food-service Managers

Letter of Consent

[Date]

Dear [name of participant],

Thank you for agreeing to provide information and your views on foods and nutrition in schools. The results will contribute to meeting the objectives of the project which are: (a) to better understand food-services and nutrition education in schools and (b) to develop strategies that would encourage an increased emphasis on nutrition. The project is part of my Ph.D. research and I am conducting it with the cooperation of the Department of Education.

I would like to tape-record the interview to have an accurate record of what was said. I will be the only person to use the information on the tape. The tapes will be kept in my office. Before we proceed, please complete the attached form indicating you consent to participate. Thank you very much for your cooperation.

Sincerely,

Mary McKenna
Faculty of Education, UNB

Please circle your response to each of the following questions:

- | | | | |
|----|---|-----|----|
| 1. | I have been fully informed of the objectives of the project, and have had the opportunity to ask any questions. | YES | NO |
| 2. | I am aware that I am free to refuse to answer any questions and may discontinue my participation at any time. | YES | NO |
| 3. | I agree to have this interview tape-recorded | YES | NO |

Please circle your response.

I DO / DO NOT give permission for my name to be associated with my comments.

Signature _____ Printed Name _____

Position _____ Date _____

Interview Guide for Departmental Employee

- A. I'd like you to forget, for a few minutes, the fact that there is a policy to get your views on a number of general topics:
- I'm interested to know what you feel is the purpose or purposes of a schools' food service?
 - What do you think is an appropriate role for schools with regard to encouraging good nutrition?
 - What do you think is an appropriate role for schools with regard to promoting health in general?
 - Do you view school health promotion as something that is integral to the purpose of schools or as something that is a responsibility added to all your other responsibilities?
- B. Now let's remember that there is a policy. What was your position with the Department of Education when the policy was developed? What involvement did you have with the policy? What do you remember about ...
- The identification of the need for the policy?
 - The process of formulating the policy?
 - Approval of the policy?
 - Implementation of the policy?
 - School visits?
 - Reaction to the policy and trouble-shooting activities?
 - Pressure and support by the Department for districts and schools?
 - Reaction by districts and schools?
 - Decision-making and commitment to implementation within the Department?
 - The differences (if any) between the way this policy and other departmental policies were developed and implemented?
 - Monitoring of implementation?
 - Any other key events?
- C. Based on your views, knowledge and experience,
- What do you think of the policy?
 - What do you think are barriers to implementation?
 - Who do you think might be sources of support for implementation?
 - What type of process do you think might lead to a more successful outcome? How would you counteract the negative responses?
 - How do you respond to the issues of choice, profit, student preferences?
 - Do you see a role for any of the following in trying to implement the policy:
 - pressure and/or support by the district for schools?
 - encouraging participation and collaboration?
 - looking at the issue broadly?
 - attending to equity?
- D. Tell me about your background as an educator.
- E. Do you have any other comments?

Interview Guide for District Nutrition Representative

- A. I'd like you to forget, for a few minutes, the fact that there is a policy to get your views on a number of general topics:
- I'm interested to know what you feel is the purpose or purposes of a schools' food service?
 - What do you think is an appropriate role for schools with regard to encouraging good nutrition?
 - What do you think is an appropriate role for schools with regard to promoting health in general?
 - Do you view school health promotion as something that is integral to the purpose of schools or as something that is a responsibility added to all your other responsibilities?
 - What do you think is the desired relationship between districts and schools with regard to nutrition and health promotion?
- B. Now let's remember that there is a policy. You mentioned that you were on the original committee that worked with the policy in the district. Could you tell me what you remember about . . .
- The composition of that committee?
 - The committee's decision-making process?
 - The committee's goals?
 - Responses from all parties?
 - Monitoring the implementation process?
 - Level of district support/commitment/pressure?
 - Relations between schools and district?
 - Changes that occurred during the process?
- C. Based on your views, knowledge, and experience . . .
- What do you think of the policy?
 - What do you think are barriers to implementation?
 - Who do you think might be sources of support for implementation?
 - What type of process do you think might lead to a more successful outcome? How would you counteract the negative responses?
 - Do you see a role for any of the following in trying to implement the policy:
 - pressure and/or support from the district to schools?
 - encouraging participation and collaboration?
 - looking at the issue broadly?
 - attending to equity?
- D. Tell me about your background as an educator and your relationship to the policy.
- E. Do you have any other comments?

Interview Guide for School Principal

- A. I'm very interested to learn more about the changes in food services that you've made at your school so far this year.
- Could you please describe them?
Probes: food services, nutrition education, access to food
 - How was the decision to change made?
Probes: pressure/support, the role of the principal, teachers, parents, others
 - How do you feel about the changes?
 - What has been the response from teachers, students, and others?
 - How are food services used in your school?
Probe: effects on profits
 - What would you say are sources of support for making the kind of changes you made?
 - What would you say are sources of resistance to the changes you made?
 - How do you deal with each?
 - Have you ever tried to do something like this before?
 - What's your advice for someone planning to do what you are doing?
- B. I understand you were on the original committee that tried to implement the policy when it first came out. Could you please tell me about that experience?
- C. I'd like you to forget, for a few minutes, the fact that there is a policy to get your views on a number of general topics:
- I'm interested to know what you feel is the purpose or purposes of a schools' food service?
 - What do you think is an appropriate role for schools with regard to encouraging healthy eating?
 - What do you think is an appropriate role for schools with regard to promoting health in general?
 - Do you view school health promotion as something that is integral to the purpose of schools or as something that is a responsibility added to all your other responsibilities?
- D. Tell me about your background as an educator.
- E. I'd like to get some information about your school.
- What is the school population?
 - What type of background do most students come from?
 - Where is it located in terms of other food outlets?
 - Are there any other community programs offering food nearby?
- F. Do you have any other comments?

Interview Guide for Teachers

- A. How long have you been at this school? Have you noticed any changes in the food services during that time?
- If yes, what were the changes and how did they come about?
 - What were supports and barriers to these changes?
 - Was there any teacher involvement?
 - What has been the response to date, especially by students and parents?
 - What was the reason for the changes?
 - What would you say has been the impact of the changes, if any?
- Probes: impact on student habits
- B. Do you use the cafeteria? What do you think of the foods that are available? Are there any changes you would like to see and any ideas about how they might happen?
- C. How do decisions about the school's food services get made? What do you think of this process?
- What sources should be used to decide what foods should be available in schools?
- D. In your classroom teaching . . .
- Do you have any involvement in teaching nutrition?
 - If yes, what is covered?
 - What is the student response to material?
 - What links are made to the school's food services?
 - Do the food services come up as a topic in your teaching? If yes, how?
 - What school activities benefit from revenue generated by food sales?
- E. Do you have any comment on whether a morning snack or breakfast program would be useful in this school? What supports or barriers exist in relation to such a program?
- F. I'd like to hear your views on school and nutrition in general:
- I'm interested to know what you feel is the purpose or purposes of a schools' food service?
 - What is your opinion on an appropriate role for teachers in promoting health in school?
 - What would you say your school does best to encourage healthy eating?
 - Do you see the promotion of healthy eating as an added responsibility or as part of what schools do, or do you have another view?
- G. Tell me about your teaching background.
- How many years have you been teaching?
 - How many years have you been in this school?
 - What grades do you teach?
 - What subject areas do you teach?
- H. Do you have any other comments?

Interview Guide for Students

- A. Could you tell me about the changes in your cafeteria this year?
- Do you know how the changes came about?
 - What impact do you think the changes had initially?
 - What impact do you think the changes are having now?
 - Do you think students are eating any differently now than before?
 - Did you eat in the cafeteria last year? What did you typically eat?
 - Do you eat in the cafeteria this year? What do you typically eat?
 - Why do you think the changes were made? How do you feel about that?
 - Did your parents say anything about the changes that were made?
 - Are there other changes you would like to see?
- B. Have there been any changes in the foods in your canteen this year?
- How do you feel about that?
 - What changes would you like to see in the foods offered by the canteen?
 - How do you think these changes would affect the money the school obtains from the canteen?
- C. Does the cafeteria come up as a subject in any classrooms lessons?
If yes, how is it taught and who teaches it? What do you learn about?
- D. Do you have any comments on whether a morning snack or breakfast program would be useful in this school? What supports or barriers exist to such a program? How often do you eat something before coming to school?
- E. Some people think that schools are a great place to promote health among students — physical, mental, social health; others think that the main role of schools relates to student learning. What do you think? What sort of influence if any, do you think the school has on health decisions you make with regard to eating or in other areas?
- F. Tell me about yourself:
- How old are you?
 - How many years have you attended this school?
 - What foods should be available in schools?
- G. Do you have any other comments?

Interview Guide for Parents

- A. Tell me about yourself:
- How many of your children are associated with this school?
 - How many years have you had children in this school?
- B. Does your child talk about the foods available in the school?
- What is his/her response to them?
 - Does he/she buy them?
 - What kinds of foods does your child buy?
 - Where does he/she get lunch?
- C. Does the school inform you about the foods that are available? If yes, how?
- D. Are you aware of any role that parents play in the school cafeteria? How do you feel about that?
- E. What is your opinion of schools offering food services, like cafeterias, in schools? What do you see as their purpose? Do you see a role for nutrition education associated with the food services? If yes, what kind?
- F. What changes would you like to see in the foods offered in this school? Where do your views, about what foods should be available in schools, come from?
- G. Some people think that schools are a great place to promote health among students — physical, mental, social health; others think that the main role of schools should be related to student learning. What do you think?
- What sort of influence if any, do you think the school has on health decisions your child makes with regard to eating or in other areas?
 - What, in general, do you think the relationship should be between homes and schools regarding health?
- H. Do you have any comments on whether a morning snack or breakfast program would be useful in this school?
- What supports or barriers exist to such a program?
 - Would this be something useful for your child?
- I. Do you have any other comments?

Interview Guide for Cafeteria Food-service Managers

- A. What do you see as the purpose of the cafeteria?
- B. What are your views on the cafeteria menu in general? To what degree does the cafeteria promote healthy eating?
- C. Have there been any changes in the cafeteria regarding the types of foods offered? If yes, how did these come about? What was your involvement?
- D. What is the students' response to the changes that have been made?
- E. What do you think is the cafeteria's role in promoting healthy eating, if any?
- F. Are there currently any links between the cafeteria and classroom nutrition education activities? Should the cafeteria have any role in nutrition education activities?
- G. What professional development opportunities do you have to learn more about how to promote healthy eating?
- H. Tell me about your background:
 - How long have you been working here?
 - What was your previous work experience?
- I. Do you have any other comments?

Appendix C

Participant-observation Activity with School Classes

In this 30-minute activity, students role-play that they are nutrition experts. They are divided into small groups in which they are given information about the foods available in their school. They are then asked questions about the items. They record their answers on a flipchart. Groups then present their reports to the whole class and time is given to discuss the responses. The following is a sample handout given to students.

Nutrition Experts

You have been invited to this school to decide if it promotes healthy eating. Each person in your group is a nutrition expert. Please record your answers to the questions below on the flipchart paper and be prepared to share the results from your group with the rest of the class.

Please use the CAFETERIA MENU to help you answer the questions below:

1. Does this menu encourage healthy eating? Why or why not?
- 2.. Would you recommend any changes to encourage healthier eating?
3. Are there other ways the cafeteria could promote healthier eating (e.g., advertising, specials)?
4. Are there class projects that students could do that would promote healthier eating in the cafeteria?

CAFETERIA MENU

nachos and cheese	hamburger	fish & chips	pizza
hot dog	chicken burger	cheeseburger	fries
garlic fingers	turkey salad	tossed salad	poutine
tuna salad	turkey salad plate	sandwiches	sub (cold cuts)
sub (roast beef)	cheese sticks	soup	
chocolate milk	iced tea	pink lemonade	water
fruit punch	apple juice	orange juice	grape nectar
grape drink	tropical punch drink	peach drink	white milk
chocolate macaroons	muffins	cup cakes	pastries
choc. Chip cookies	Granny Smith apples	oranges	brownies
chocolate pudding	cinnamon roll/danish	ice cream	squares
McCain apple pie	donuts with icing	frozen yoghurt	
Sun chips	cheetos corn puffs	pretzels	
crispers	ritzbits	cough drops	

Student Food Survey

Now you may stop being a nutrition expert and become a student again. Please answer the questions below. Do not put your name on the sheet.

1. Do you buy food at the cafeteria at lunch time (check your response)?
- ☐ Yes, I usually buy the meal that is on special
 - ☐ Yes, I usually buy something else
 - ☐ Yes, I usually buy the meal on special plus something else
 - ☐ No, I do not (if no, skip to question 4)

2. List your four (4) favourite cafeteria choices (please be specific, e.g., chocolate milk, not milk).
1. _____

2. _____

3. _____

4. _____

3. How often do you buy french fries when they are available (check your response)?
- ☐ Always
 - ☐ Usually
 - ☐ Sometimes
 - ☐ Seldom
 - ☐ Never

4. Do you buy anything from the school's pop/juice machine?
- ☐ Yes

☐ No (if no, skip to question 6)

5. List your two favourite choices (please be specific, e.g., coke, not just pop).
1. _____

2. _____

6. Is breakfast available at this school (check your response)?
- ☐ Yes

☐ No

Do you think it would be a good idea? Why or why not?

7. (Optional Question)
- Did you eat something before class this morning? (Check your response)
- ☐ Yes

☐ No

8. Please use the space below if you have any comments about the foods available at this school
- _____

Appendix D

Interview Guide for District F Principals

Elementary School Food Survey — Fall 1998

The purpose of this interview is to determine the extent to which current school practices promote healthy eating, provide nutrition education related to school food services, and permit students to access food.

There are two ways the results of this study will be used. The interview objectives are the same in both cases:

1. The information will be used by the District F Nutrition Committee to formulate an improvement plan for school foods by identifying areas of improvement and strategies for doing so.
2. With your consent, the information will be used to support ongoing research on healthy eating in schools being conducted by Mary McKenna, Faculty of Education, University of New Brunswick, with the support of the New Brunswick Department of Education. The results of this study will be used to assist District F and other districts regarding school foods and nutrition. Neither you nor your school will be identified in the research.

I have had the opportunity to ask any questions about the use of these results by Mary McKenna.

I GIVE permission for the results to be used.

Signature: _____

Name: _____

Position: _____

Date: _____

I DO NOT GIVE permission for the results to be used.

Signature: _____

Name: _____

Position: _____

Date: _____

School Food Services, Healthy Eating and Student Access to Food

(Complete one form for each interview)

First, I'd like to ask you some questions about your school's food services. I use the term "food services" to mean any service related to the food available in your school. I'll begin with lunch.

1. a) How many days per week does your school offer lunch for students?
 _____ days/week **(If 0 days, go to Question 2a)**

- b) Who is responsible for organising the program?

_____ Parent volunteers

_____ The school

_____ Community group

_____ Other, specify _____

- c) What foods are available in the lunch program? **(Or attach menu)**

- d) Does this school currently have an agreement with a fast food restaurant to offer any of the lunch foods?

_____ No _____ Yes

- e) **(If Yes)** What are the names of the restaurants? **Indicate name of restaurant opposite the foods listed in Question 1c or on menu.**

- f) How is the decision made regarding what foods are offered for lunch? **(e.g., Who is the person ultimately responsible for deciding what is served?)**

- g) Who is eligible to participate in the lunch program? **(e.g., Are all students encouraged to participate or is it a targeted program? If targeted, how are students chosen?)**

h) What do students pay for the lunch program?

- ☐ All students pay full price
☐ Costs are subsidised
☐ Free for all students. If so, who pays? _____
☐ Other, specify _____

i) Look at Handcard #1. Which of the purposes listed are served by the lunch program in this school? (Check all that apply).

- ☐ Fundraiser for school or school group
☐ Opportunity for school to encourage healthy eating among students
☐ Opportunity for students to eat something hot at lunch
☐ Opportunity to provide food for children who otherwise may not have enough to eat
☐ Service for parents
☐ Treat for students
☐ Other (specify) _____

I now have some questions about School Breakfast programs

2. a) How many days per week does your school offer breakfast for students:
 _____ days/week

b) (If 0 days/week) What is your main reason for not offering breakfast?

- ☐ Not a need
☐ Insufficient volunteers
☐ Parental responsibility
☐ Other, specify _____

(Go to Question 3a)

c) (If 1+ days/week) Who is responsible for organising the breakfast program?

- ☐ Parent volunteers
☐ The school
☐ Community group
☐ Other, specify _____

d) What foods are available in the breakfast program? (Or get the menu)

- e) How are decisions made regarding what foods to offer for breakfast? (e.g., Who is ultimately responsible for deciding what is served?)

- f) Who is eligible to participate in the program? (e.g., Are all students encouraged to participate or is it a targeted program? If targeted, how are students chosen?)

- g) What do students pay for the program?

☐ All students pay the same

☐ The cost is subsidised for some students

☐ Free for all students

☐ Other, specify _____

- h) Look at Handcard #1. Which of the purposes listed are served by the breakfast program in this school? (Check all that apply).

☐ Fundraiser for school or school group

☐ Opportunity for school to encourage healthy eating among students

☐ Opportunity for students to eat something hot at breakfast

☐ Opportunity to provide food for children who otherwise may not have enough to eat

☐ Service for parents

☐ Treat for students

☐ Other (specify) _____

Now I'd like to ask you about other food services that may be available to students in this school.

3. a) Does this school have food or drink vending machines that students are permitted to use?

☐ No (If No, go to Question 4a)

☐ Yes

☐ Number of machines _____

- 3) What foods are available in the vending machines? (record name of food, portion size, and cost)

- c) Are there any restrictions placed on the availability of certain foods through the vending machines? For example, are some foods allowed on some days or at some times, but not others?

_____ No _____ Yes

- d) How are decisions made regarding what foods to offer in the machines? (e.g., Who is ultimately responsible for deciding what is served?)

4. a) Does this school have a canteen for student use?

_____ No (If No, go to Question 5a)

_____ Yes

- b) What foods are available in the canteen (record name of food, portion size, and cost)

- c) Are there any restrictions placed on the availability of certain foods through the canteen? For example, are some foods allowed on some days or at some times, but not others?

_____ No _____ Yes

- d) How are decisions made regarding what foods to offer in the canteen? (e.g., who is ultimately responsible for deciding what is served?)

5. The next questions are about other aspects of your school's food services as well as about healthy eating. Handcard #2 shows the possible responses. When I ask a question, please select the statement which best reflects the situation at your school.

1. Fully in place 2. Partly in place 3. Under development 4. No plans 5. Don't know

- a) The school has provisions for students who arrive at school in the morning without having eaten

1 2 3 4 5

(If 1 or 2, specify _____)

- b) The school has provisions for students who do not have food at lunch time

1 2 3 4 5

(If 1 or 2, specify _____)

- c) The school periodically evaluates the need to provide additional food services like breakfast/snack programs 1 2 3 4 5
- d) The school coordinates its food services with homes and actively encourages parental involvement 1 2 3 4 5
- e) The school promotes healthy eating by encouraging parents to send healthy food to school with their children 1 2 3 4 5
- f) Price, presentation, and advertising are used to promote healthy eating in the school 1 2 3 4 5

(Only ask questions 5g-5j if the school offers the service)

- g) The foods available in the lunch program model and promote healthy eating habits 1 2 3 4 5
- h) The foods available in the breakfast program model and promote healthy eating habits 1 2 3 4 5
- i) The foods available in the vending machines model and promote healthy eating habits 1 2 3 4 5
- j) The foods available in the canteen model and promote healthy eating habits 1 2 3 4 5
- k) The school consistently offers healthier versions of comparable foods when available (e.g., real juice, vegetable toppings on pizza) 1 2 3 4 5
(If 1 or 2, ask for an example)

-
- l) The school's fundraising efforts either do not involve food or support healthy eating messages 1 2 3 4 5
(If 1 or 2, identify food)
-
-
-

6. I have some additional questions about food services in your school.

a) The opportunity for students to make off-school food purchases is:

- ☐ not allowed due to school policy
☐ unlikely due to the distance involved
☐ easy

b) What impact, if any, does the accessibility of off-school food purchases have on the types of food made available at your school?

7. a) Does your school follow any nutritional guidelines when selecting which foods to make available?

☐ No
 ☐ Yes

b) If yes, please specify what guidelines are followed:

c) What is your response to the following: For the students in this school, the sales appeal of healthy food appears to be:

- ☐ Excellent
☐ Good
☐ Fair
☐ Poor
☐ Not sure

d) Look at Handcard #3. Which statement best reflects this school's philosophy regarding what foods to make available in the school:

- ☐ Market forces of supply and demand should govern what food is sold, more than concerns about nutrition
☐ Students should have the option to purchase healthy and less healthy food and be educated to make healthy choices
☐ It is more important to at least provide students with food than to worry about its nutritional value
☐ The idea of providing healthy food is good, but it is too difficult to find foods that students will eat that are reasonably priced
☐ Healthy foods should be the dominant foods sold in schools
☐ Other

Nutrition Education and Promotion

Now I'd like to ask about how your school promotes healthy eating through education or other activities.

8. Look at Handcard #4. Are you aware if your school uses or has used any of the techniques listed to promote healthy eating in schools in the last two years? Has your school done other things to promote healthy eating that are not listed?

- _____ None of these
- _____ Information about the food available in schools is given to students and parents.
- _____ Information about the nutrition and caloric content of the food is given to students and parents.
- _____ Nutrition education materials are used as part of the school's food services.
- _____ The school's food services are used to provide opportunities to reinforce classroom instruction.
- _____ Students and parents are involved in menu planning, menu evaluation, and taste testing.
- _____ Educational strategies integrate the promotion of healthy eating into subjects like physical education, science, math, and/or social studies.
- _____ Teachers do not use food as a reward or punishment in connection with student behaviour or learning.
- _____ Efforts by the school to promote healthy eating are publicised within the school and community.
- _____ Educational strategies link the school's food services with classroom learning.
- _____ Teachers receive in-service training in health and nutrition.
- _____ Special nutrition events are organised within the school (e.g., Nutrition Month in March).
- _____ Other, please specify _____

School Changes Related to Healthy Eating, Nutrition Education, and Student Access

Next, I'd like to ask you about changes you might have made to your school food services in the last two years.

9. a) During the past two years, what changes has your school made to: (1) promote healthy eating, (2) enhance nutrition education, or (3) improve student access to food?

- b) Is there any action you are currently taking to promote healthy eating, enhance nutrition education, or improve student access to food?

- c) Based on your experience, what supports exist within the school community which encourages the promotion of healthy eating in schools, nutrition education, or student access?

- d) What barriers exist and how do you think they could be addressed?

- e) What support do you think the district or Department of Education could provide to assist you promoting healthy eating, providing nutrition education, or improving student access to food in schools?

- f) What pressures would help you?

- g) Overall, at this time, compared with other school priorities, would you say that nutrition issues (i.e., health eating, nutrition education, and student access to food) are (check one):

- ☐ not a school priority at this time
☐ a moderately important school priority
☐ an important school priority

Nutrition Policy and School Information

My last questions are about the food and nutrition policy for New Brunswick schools and a few questions about your school.

10. a) Are you familiar with the Food and Nutrition Policy for New Brunswick Schools?
 ___ No (Go to Question 10e)
 ___ Yes
- b) Is a copy of the policy available at this school?
 ___ No ___ Yes
- c) Are teachers, parents, and students informed of this policy by the school?
 ___ No ___ Yes
- d) Is the policy is addressed in the school's improvement plan?
 ___ No ___ Yes
- e) How would you characterise the impact of the policy on what foods are currently available in the school. Has the impact been:
 ___ Significant
 ___ Moderate
 ___ Minimal
 ___ Nil

Finally, I have a few questions about your school.

11. a) What is the approximate student population? _____
- b) What grade levels are available in the school? _____
- c) How would you characterise the make-up or background of your student population?

- d) **If available at school**, where do students eat breakfast?

- e) How many minutes do they have to eat breakfast? _____
- f) Where do students eat lunch?

- g) How many minutes do they have to eat lunch? _____

- h) Are there any other programs or activities that impact on the type of foods you offer in the school (e.g., Green school, environmental practices, allergy policies)?

12. Do you have any other questions or comments?

Appendix E

School Nutrition Survey Results

1. School D1 Total responses = 24
2. School D2 Total responses = 45
3. School F1 Total responses = 42
4. School F2 Total responses = 27
5. School F3 Total responses = 23
6. School F4 Total responses = 56

Student Nutrition Survey Results

School D1

Total responses = 24

7. How often do you eat lunch in the cafeteria?

Usually buy meal on special	3 (12.5%)
Usually buy something else	20 (83.3%)
Buy meal and something else	--
Buy nothing	1 (4.2%)

8. List your five favourite choices:

Pizza	17 (73.9%)	Slushies	13 (56.5%)
French fries	10 (43.5%)	Choc. Milk	13 (56.9%)
Poutine	5 (21.7%)	Juice	3 (13.0%)
Chicken nuggets	4 (17.4%)	White milk	1 (4.3%)
Garlic fingers	4 (17.4%)	Lemonade	1 (4.3%)
Cookie	4 (17.4%)	Peach drink	1 (4.3%)
Donuts	3 (13.0%)		
Cake & Pastries	3 (13.0%)		
Pudding	2 (8.7%)		
Salty snacks	2 (8.7%)		
Ice cream	2 (8.7%)		
Soup	1 (4.3%)		

9. How often do you buy french fries?

Always	--
Usually	5 (20.8%)
Sometimes	12 (50.0%)
Seldom	2 (8.3%)
Never	5 (20.8%)

10. Do you support the idea of a breakfast program for your school?

Yes 13 (54.2%) No 7 (29.2%) Unsure 4 (16.7%)

11. Do you have any comments about a breakfast program?

Supported program:

- I never have time to eat breakfast (5)
- Breakfast is the most important meal of the day. Some people forget to eat it. (2)
- When you eat a healthy breakfast, you can think better and have more energy
- A lot of kids come to school hungry and that affects their thinking.
- There should be some kind of a program for people who don't have the time or money (2)

Did not support program:

- You would have to get here early (3)
- The cafeteria is busy enough and I think they would charge too much
- They would probably give you something that would not be healthy

12. Did you eat breakfast before coming to school this morning?

Yes 17 (70.8%) No 6 (25.0%) No answer 1 (4.2%)

13. Do you have any comments about the food services in your school?

- Food is too greasy (9)
- Food is really good (3)
- The only problem is that it is not good for your health
- Its really good. They should keep the menu how it is.
- Food is really bad
- I really like fruit. So I'd like more fruit.
- I think they charge too much
- The salads and fruits should be put in a more popular place. More people would buy it (2)
- They should make nutritious food more available (advertise with posters, specials, lower prices)
- Too expensive for a school. I'm not impressed when sometimes my friends find hairs in the food
- I think we should keep the fat foods and just get more healthy foods

Student Nutrition Survey Results

School D2

Total Responses = 45

14. Do you buy food at the cafeteria at lunch time?

Yes 30 (66.7%) No 15 (33.3%)

15. List your five favourite choices

Subs	25 (83.3%)	Pastries/Pizza	11 (36.7%)
Pizza	24 (80.0%)	Milk	8 (26.7%)
Garlic Fingers	16 (53.3%)	Juice	3 (10.0%)
French fries	15 (50.0%)	Iced tea	1 (3.3%)
Poutine	13 (43.3%)		
Nachos	8 (26.7%)		
Salads	5 (16.7%)		
Sandwiches	4 (13.3%)		
Specials	3 (10.0%)		
Potato Chips	1 (2.2%)		

16. Do you buy foods in the morning at your cafeteria?

Yes 10 (22.2%) No 35 (77.8%)

17. List your three favourite choices

Milk (chocolate/white)	9 (90.0%)
Pastries & Cookies	8 (80.0%)
Juice	3 (30.0%)
Bagels	2 (20.0%)

18. Do you buy food or beverages at the school vending machine?

Yes 41 (91.1%) No 4 (8.9%)

19. List your three favourite choices

Soft drinks	41 (100.0%)	Salty snacks	21 (51.2%)
Water	8 (19.0%)	Candy	14 (33.3%)
Fruit drink	6 (14.3%)	Chocolate bars	12 (28.6%)
Juice	4 (9.5%)	Gum	5 (11.9%)
Iced tea	3 (7.1%)		
Coffee	2 (4.9%)		
Powerade	2 (4.9%)		

20. Did you eat something before coming to school this morning?

Yes 28 (62.2%) No 17 (37.8%)

21. Do you have any comments about promoting healthy eating at school?

- No comment (21)
- Try and limit junk food and have a breakfast program at school
- Need a breakfast program (2)
- It's good to have some health foods, but junk food is chosen most
- Start a health class for the students so they will be more knowledgeable about good nutrition
- The cafeteria should have a salad bar, etc. and more selection of fresh fruit and vegetables
- Maybe having a vending machine with all good and healthy foods, then maybe one with junk foods because we all need some junk food once in a while. And another one with pop and healthy drinks
- We want a good breakfast program and it has to be good. We don't want watery eggs
- I think it would be a good idea to have a breakfast program. I never eat breakfast because I don't have enough time.
- It will keep students in better shape, especially the athletes. I mean who wants grease-filled garlic fingers before practice — not me!
- I think it's a good idea for the athletes
- We should only have the most fatty foods like fries once or twice a week. Subs should be cheaper (2)
- Need lower prices. How do you expect kids to pay higher prices?
- I think it is important to eat healthy. So I think our school should do as much as possible to promote healthy eating.
- Stop raising the prices. Also we need more variety.
- Inform students about what healthy eating is and what the long term consequences can be from unhealthy eating.
- I think the food company that supplies our cafeteria should have surveys on healthy foods and see if students would be seriously interested and then serve some healthier foods
- The healthy foods they have look awful and are more money. Maybe if they got foods that we want to eat (pasta) and didn't charge so much.
- Lower the prices dramatically. It's too expensive to eat lunch every day in the cafeteria. Very good idea to have pre-ordered subs.
- If they had home cooked healthy foods at the cafeteria such as turkey and other good products for low prices, maybe more people would buy healthy foods.
- Give an equal selection of healthy and non-healthy foods to give people an option
- Bring in more healthy foods and make the prices low. Don't bring in granola bars, etc.; bring in fruit and crackers
- Give everybody apples
- Our school has many good foods and some bad. So everyone has a selection.

Student Nutrition Survey Results

School F1

Total Responses = 42

1. Are you a customer at the cafeteria?

Yes	40 (95.2%)	No	2 (4.8%)
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2. If yes, list your three favourite choices:

Pizza	36 (85.7%)
French fries	28 (66.7%)
Caesar salad	10 (23.8%)
Chocolate milk	8 (19.0%)
Hamburger/ Cheeseburger	6 (14.3%)
Chickenburger	6 (14.3%)
Chicken noodle soup	5 (11.9%)
Ice cream	4 (9.5%)
Hot dogs	4 (9.5%)
BTL sandwich	3 (7.1%)
Choc. chip cookies	2 (4.7%)
Coleslaw/rice krispie square/ Oranges/macaroni & cheese/ juice/muffins	1 each (2.4%)

3. What are the good points for the changes to the cafeteria this year?

Larger portions of pizza and fries	12 (28.6%)
More healthy food	12 (28.6%)
Chocolate milk costs less	9 (21.4%)
Like specific foods (e.g., salads)	6 (14.3%)
New company is open minded	3 (7.1%)

4. What are the bad points to the changes?

Lost their potato chips	18 (42.9%)
Want more of some foods (E.g., pizza, treats, hamburger, fruit)	13 (31.0%)
Most food costs more	12 (28.6%)
Lost other foods	7 (16.7%)
Prefer former menu	3 (7.1%)
WE ARE NOT VEGETARIANS!!!	1 (2.4%)

Student Nutrition Survey Results
School F2
Total Responses = 27

Note: Not all students answered all questions

1. How often do you buy milk at school?

Never	8 (29.6%)
Not very often	7 (25.9%)
1 time per week	2 (7.4%)
2-3 times per week	-- -----
4-5 times per week	10 (37.0%)

5. How often do you buy your lunch at school?

Never	6 (22.2%)
Not very often	7 (25.9%)
1 time per week	1 (3.7%)
2-3 times per week	9 (33.3%)
4-5 times per week	4 (14.8%)

6. What are your two favourite lunch foods that you buy from the school?

Pizza	18 (81.8%)
Hamburger	10 (45.5%)
Hot dogs	5 (22.7%)
Chicken burger	5 (22.7%)
Milk	2 (9.1%)

7. How often do you buy from the canteen at school?

Never	3 (11.1%)
Not very often	13 (48.1%)
1 time per week	6 (22.2%)
2 times per week	1 (3.7%)
3 times per week	-- -----
4-5 times per week	4 (14.8%)

5. What are your three favourite canteen items?

Potato chips	20 (83.3%)
Ice cream sandwiches	19 (79.2%)
Dilly Bar	13 (54.2%)
Juice	8 (33.3%)
Salty snacks	4 (16.7%)

6. Did you eat something before class this morning?

Yes	17 (73.9%)	No	6 (26.1%)
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7. Do you have any comments about the foods available at this school?

- I would make more healthy canteen products
- They are very, very, very good
- They are good and I like them
- Sometimes when we order hot lunch and milk, they're late
- The food at this school is too fattening. I think it should be chips once a week and Dilly Bars and ice cream sandwiches and the rest healthy juices, celery and other vegetables.
- Give me chocolate bars

Student Nutrition Survey Results
School F3
Total Responses = 23

1. Do you buy food at the cafeteria at lunch time?

Yes 17 (73.9%) No 6 (26.1%)

2. List your three favourite choices:

Pizza	13 (76.5%)	Juice	5 (29.4%)
Chicken Burger	6 (35.3%)	Milk (choc/white)	4 (23.5%)
Hamburger	6 (35.3%)	Nutrigrain bar	1 (5.9%)
Sun Chips	6 (35.3%)		
Pretzels	3 (17.6%)		
Crackers	3 (17.6%)		
Soup	2 (11.8%)		
Hot Dogs	2 (11.8%)		
Sandwich	1 (5.9%)		

3. What do you think about the changes to the cafeteria this year, if any:

- I like the changes because I like to be healthy and keep fit
- I like the pizza
- That we have chicken burgers
- It is more healthier and more efficient (2)
- I like it because there are not as much junk food as there used to be
- The fruit roll-ups
- The pretzels and Sunny D is good

4. What don't you like about the changes to the cafeteria this year, if any:

- Took all the good food away
- Lots of things I like are gone
- The chips are the healthy crap
- No chocolate bars
- No salad
- I don't like that it is healthy
- Need more juice
- Need more variety of chips
- I think they should have healthier food
- Nothing good is still here
- No chips and no chocolate bars
- It really bites because Pizza Shack pizza is no good. I think they should serve Greco or Pizza Hut for pizza.

5. Do you buy anything from the vending machines?

Yes 19 (82.6%) No 4 (17.4%)

6. List three favourite choices:

Soft drinks	19 (100.0%)	Chips	2 (10.5%)
Water	6 (31.6%)	Candy bars	1 (5.3%)
Juice	4 (21.1%)		
All Sport	4 (21.1%)		

7. Is breakfast available at this school? Do you think it would be a good idea? Why or why not?

- No, breakfast is not available.
- No comment (5)
- I don't care. I don't eat breakfast.

Good Idea

- Something to fill you up till lunch
- People miss breakfast at home
- Most important meal of the day
- Can never have enough breakfast
- Energy for the day
 - I think people would like it a lot

8. Did you eat something for breakfast before class this morning?

Yes 17 (73.9%) Sometimes 1 (4.3%) No 5 (21.7%)

9. Additional Comments:

- I like new changes
- Take out the high fat food like hot dogs and egg sandwich
- Pizza Shack no good
- It's good but there should be more junk food
- I don't think healthy food is a good idea, people come in late because they go to the store to buy chips and bars
- It's okay but should have old menu back
- Salads and fruits should be available along with breakfast
- More choices

Student Nutrition Survey Results
School F4
Total Responses = 56

Do you use the lunch services at your school?

Yes 36 (64.3%) No 20 (35.7%)

List your five favourite choices at lunch

French fries	35 (97.2%)	Milk	7 (19.4%)
Pizza	24 (66.7%)	Juice	4 (11.1%)
Subs	15 (41.4%)	Soft drinks	4 (11.1%)
Onion rings	13 (36.1%)	Fruit	3 (8.3%)
Chips	8 (22.2%)	Punch	1 (2.7%)
Salads	7 (19.4%)	Yoghurt	1 (2.7%)
Nachos	6 (16.7%)	Ice cream	1 (2.7%)
Specials	6 (16.7%)	Squares	1 (2.7%)
Chicken	5 (13.9%)		
Hamburgers	4 (11.1%)		

Do you use the breakfast service available at your school?

Yes 12 (21.4%) No 44 (78.6%)

List your three favourite choices at breakfast

Muffin	7 (58.3%)	Donuts	2 (16.7%)
Milk	7 (58.3%)	Bagel	1 (8.3%)
Fruit	3 (25.0%)	Bacon & Eggs	1 (8.3%)
Toast	3 (25.0%)	Cereal	1 (8.3%)
Juice	2 (16.7%)	Yoghurt	1 (8.3%)
Chips	2 (16.7%)		

Do you use the services of the canteen at your school?

Yes 43 (76.9%) No 13 (23.2%)

List your three favourite choices from the canteen

Salty snacks	43 (100.0%)	Soft Drinks	27 (62.8%)
Chocolate bars	21 (48.8%)	Juice	10 (23.3%)
Candy	8 (18.6%)	Water	2 (4.7%)
		Tea	1 (2.3%)

Additional Comments

- [The cafeteria workers] should have to wear hair nets and gloves
- Last year the cafeteria at [another] High School was much better. Now you don't get your money's worth. So now I have to go to [the local donut shop]. Now we don't eat a lot of healthy food.
- Last year the food was better and cheaper. Now the food is less different and more expensive. A lot of people get sick from eating in the cafeteria.

